OLD!

THE ESSENTIAL GUIDE TO CLASSIC GAMES

retro GAMER™

AMSTRAD | COMMODORE | SEGA | NIN... | ...EO

ULTIMATE GUIDE:
RAIDEN
THE COMPLETE LOWDOWN ON SEIBU KAIHATSU'S FRANTIC SHOOT-'EM-UP

SPACE INVADERS

40TH ANNIVERSARY SPECIAL

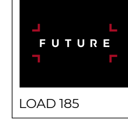
TOMOHIRO NISHIKADO ON THE CULTURAL IMPACT OF TAITO'S MONSTER ARCADE HIT

Code Masters Simulators
THE HISTORY BEHIND THE BARGAIN BIN DELIGHTS

SYNTHESISING SYPHON FILTER
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EVERYTHING YOU NEED TO KNOW ABOUT ERIC CHAHI'S CINEMATIC ADVENTURE

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LOAD 185

THE RETROBATES

WHAT'S YOUR EARLIEST MEMORY OF SPACE INVADERS?



DARRAN JONES

Seeing it in action at my local funfair and then experiencing the Atari 2600 version over at a friend's house.

Expertise:
Juggling a gorgeous wife, two beautiful girls and an award-winning magazine
Currently playing:
Steamworld Dig 2
Favourite game of all time:
Strider



DREW SLEEP

It's coded so hard into pop culture's DNA it's hard to pinpoint when my first encounter was. It's like trying to remember when you first watched TV or read a book.

Expertise:
Retaining youth via supernatural means
Currently playing:
Nier: Automata
Favourite game of all time:
Final Fantasy VIII



NICK THORPE

My dad had the Atari 2600 version of *Space Invaders*, so I'd have been about three years old when I first encountered it. The cart is sitting on my desk right now!

Expertise:
Owning five Master Systems (I sold two)
Currently playing:
Another World
Favourite game of all time:
Sonic The Hedgehog



SAM RIBBITS

The memory that really sticks in my mind is that time the **RG** team did a *Space Invaders* high score challenge….

Expertise:
Extreme Carbuncle hide-and-seek
Currently playing:
The Witness
Favourite game of all time:
Croc: Legend Of The Gobbos



GRAEME MASON

My dad played cricket at Loughton Cricket Club and one day they got a *Space Invaders* machine. I drove him mad asking for 10p pieces!

Expertise:
Adjusting the tape azimuth with a screwdriver
Currently playing:
Zool
Favourite game of all time:
Resident Evil 4



DAVID CROOKES

I pulled a blinder on my first attempt and actually got some impressed nods from an assembled crowd at an arcade in Blackpool.

Expertise:
Amstrad, Lynx, adventures, Dizzy and PlayStation (but is it retro? Debate!)
Currently playing:
BMX Simulator 2
Favourite game of all time:
Broken Sword



JASON KELK

I've some vague preteen memories of playing a bootleg machine at the local social club and being fascinated by the game's graphics.

Expertise:
Being a homebrew hero
Currently playing:
Sanxion
Favourite game of all time:
Io



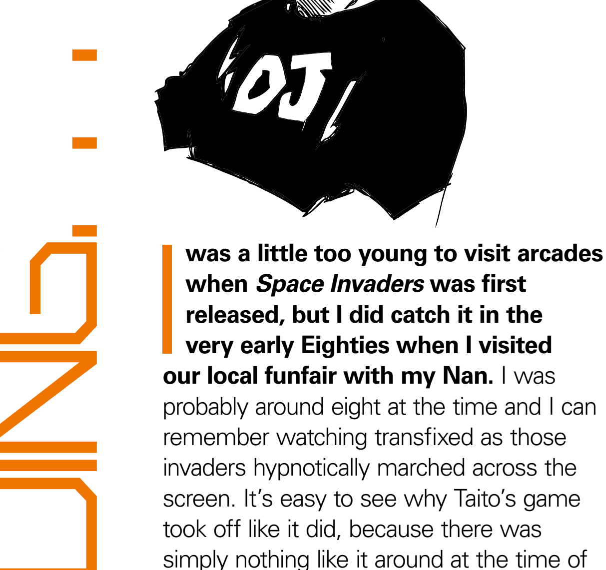


PAUL DRURY

Walking up the stairs of Golden Gains toyshop in Derby when I was nine to see this hulking cabinet with a booming heartbeat. You never forget your first 10p.

Expertise:
Camel riding etiquette
Currently playing:
Sky Diver
Favourite game of all time:
Sheep in Space

LOADING...



I was a little too young to visit arcades when *Space Invaders* was first released, but I did catch it in the very early Eighties when I visited our local funfair with my Nan. I was probably around eight at the time and I can remember watching transfixed as those invaders hypnotically marched across the screen. It's easy to see why Taito's game took off like it did, because there was simply nothing like it around at the time of its release, and its sheer popularity not only helped kickstart the games industry, but also led to the creation of the shoot-'em-up, my favourite type of videogame.

Four decades after its release and the influence of *Space Invaders* can still be felt in the industry, which makes it incredibly satisfying to not only talk to Tomohiro Nishikado about his legendary creation, but also the developers and historians that his game has left an impact on after all this time. There's more to issue 185 than just advancing aliens, though, and we also talk to Jeff Minter about his surreal minigame collection *Batalyx*, chat to David Darling and the Oliver twins about Codemasters' numerous simulator games and finally find out if the high definition reissue of *Shenmue* was worth the wait.

Enjoy the magazine!



CONTENTS

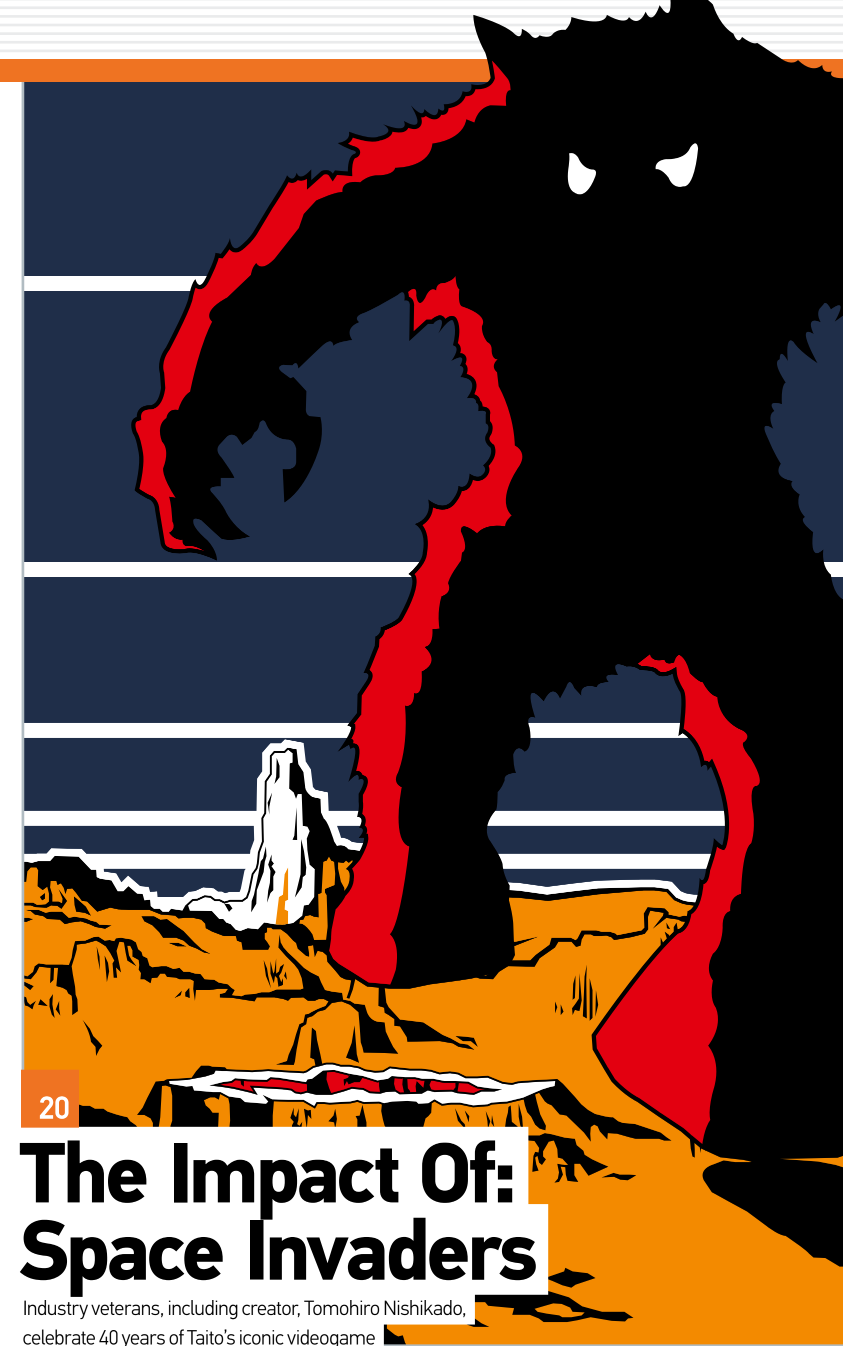
>> Load 185 Breathing new life into classic games





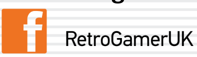


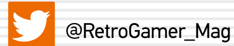






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RetroGamerUK

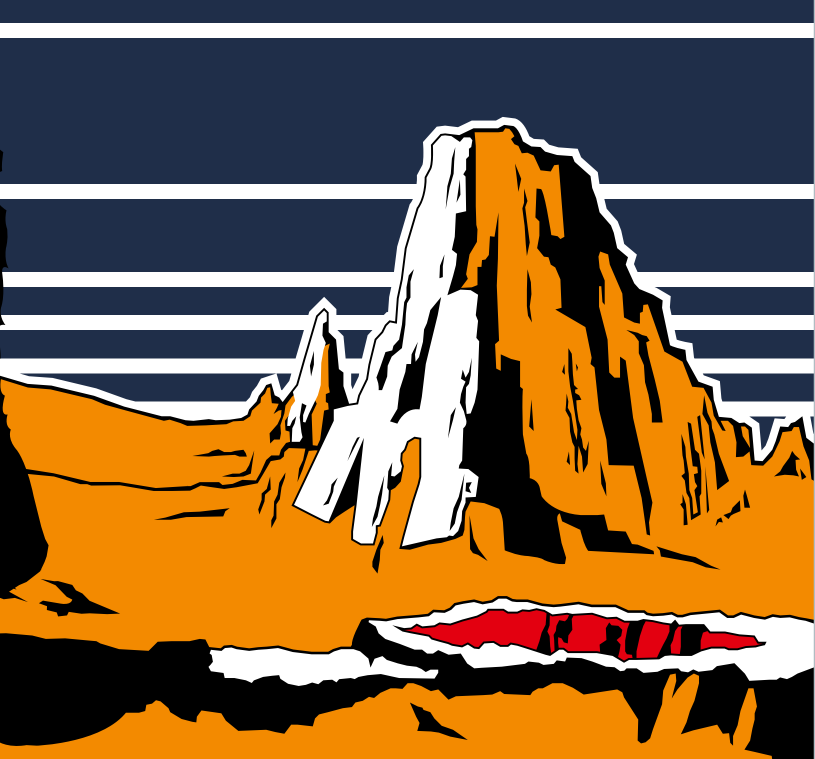

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REVIEWS



ESSENTIALS



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GIVE US TWO MINUTES AND WE'LL GIVE YOU THE RETRO WORLD

PLAY EXPO DEBUTS IN LONDON

The popular gaming show finally arrives at the capital



CONTENTS

The Retro Gamer team was in attendance over the weekend of 11 and 12 August as Play Expo finally made its debut in London, the first major show Replay Events has hosted in the southern reaches of the UK. After building success with its regular Manchester and Blackpool shows over the last few years, the organiser felt the time was right to bring its retro gaming bonanza to the capital, and in the tradition of its shows, the idea was bigger, and better, with attendees at the Printworks venue greeted by a dizzying array of arcade machines, computers, consoles, talks and more. "Straight away, it's been our second busiest show," Andy Brown of Replay Events told us, "and we've sold 4,500-5,000 tickets just for the Saturday, which is almost Manchester year three or four numbers, after that show had a chance to build up some momentum."

To regular attendees of Play Expo, the format for London will have had a reassuring familiar feel, albeit with a few bonus features thrown in. Queues were well handled throughout the day as staff ensured people waited as little as possible, although Andy admits that different audience habits assisted here, as arrivals were spread throughout the day, avoiding a mass of people at key times. Guests were welcomed with a certain DeLorean car, before entering the first room, and undoubtedly the most popular. Here, under dimmed lights that helped to recreate the arcade atmosphere of old, were a multitude of arcade machines, from classics such as *Pac-Man*, *Space Invaders* and *Moon Patrol*, to the pneumatic beasts from Sega, *After Burner* and *Out Run*. Also in this area was a large collection of pinball games that had fans patiently queuing three-deep in order to experience.

Walking through to the next hall revealed a huge area dedicated to the consoles and computers of yesteryear and today, from Amstrads to PlayStations and Nintendo GameCubes. LAN-connected PCs, loaded with Minecraft, rubbed shoulders with a vibrant indie gaming section, and this latter area, featuring games such as Stray Basilisk's RPG, *Steamhounds*, and Huey Games' shooter, *Hyper Sentinel*, also attracted fans eager to experience the latest independent games. To the right of the entrance was a stage set for the numerous talks from industry veterans and experts over the weekend. Here you could catch the Oliver twins gushing as enthusiastically as ever about their latest game, see how Sega artist Duncan Gutteridge created the



» Archer Maclean chats on stage about one of his iconic games.



» The talks on offer drew crowds, though some could've done with a host.



» The glow of the arcade was nicely replicated in the arcade/pinball area.



» New for Play Expo London was the exciting *Knightmare* live show.

famous look for *Sonic The Hedgehog* (and learn how to draw Sonic yourself), or throw questions at *Knightmare* star Hugo Myatt in a *Knightmare* Q&A. Also, in an acknowledgement to the ever-growing retro gaming YouTube community, there was a panel featuring the likes of Larry Bundy Jr, Stuart Ashen, Daniel Ibbertson (from Slope's Game Room) and Kim Justice, all chatting about their channels along with hosts, Dan Wood and Ravi Abbott of the Retro Hour Podcast.

In the spirit of Play Expo, there's always something new going on, too, and London was no exception, with the show *Knightmare Live* featuring on both days. "We had David Rowe, the videogame artist, come to one of our earlier shows," tells Andy, "and I didn't realise at the time he did all the artwork and backdrops for *Knightmare*. So we tried to get Hugo Myatt [who played Treguard in the show] and it never worked out." Earlier this year, the team behind *Knightmare Live* got in touch with Replay Events, and as Andy

"I think every show that is new and in a new venue is going to have some curveballs"
Andy Brown

recalls happily, "everything just dropped in place". Brave attendees were able to don the famous *Knightmare* helmet and take on the denizens and perils of the TV show on stage in a truly unique experience.

As always with big shows, there were challenges for Andy and his team, not least a leaky roof and mercurial weather conditions. "It had been blazing hot for ages, so we just assumed everyone was going to be in T-shirts and shorts," he explains. "And then it absolutely battered it down on Friday, meaning we had to change the queueing plans for the show. But I think every show that is new and in a new venue is going to have some curveballs, and dealing with them is part and parcel of it – if it's straightforward, it's boring apparently!" Play Expo London also saw the beginning of Future Publishing's partnership with Replay Events, with **Retro Gamer** staff in attendance, happily talking to anyone who'd listen about the world's greatest retro gaming magazine.

So with the London event done and dusted and the Printworks returned to its cavernous state, we ask Andy what



» Retro-themed indie games such as *Hyper Sentinel* proved to be extremely popular.

lies in the future. "For me personally, two days sleep!" he laughs. "But for the show, we've got Play Blackpool returning at the end of October, and another brand-new show launching next year." Despite some gentle prodding, Andy declines to reveal more on this new show; nevertheless, with Manchester confirmed for May next year, Blackpool and London likely to return, and the vast array of impending gaming markets, the future is looking bright for anyone who wishes to experience these shows first-hand. "Two weeks off, that's what I need. Then four gaming markets, and Blackpool," grins Andy. "It's lucky I don't like sitting down for too long!" *

» A nice feature of Play Expo is the way it brings gamers both young and old together

ATTENDEE COMMENTS

"It was truly an amazing experience. A great selection of arcades, computers, consoles, stalls and talks, all perfectly organised in zones."
Andy Godoy
(Get To Da Choppa podcast)

"Play Expo London had its charm, that charm being 'dark' and 'industrial'! You haven't played on a sit-down *Out Run* or *Power Drift* until you've played it in the dark. On top of that, meeting all my YouTube friends in one place was a bit of a dream come true."
Daniel Ibbertson
(Slope's Game Room)

"I think the event went really well considering Friday we basically had an indoor water feature! It was packed, and loads of people enjoyed *Baggers In Space* and *Warhawk*. Hats off to the Play Expo team!"
Jim Bagley
(Game developer)

"Being the first Play Expo in London, it was a great chance to attend without spending lots on travel, and it was a great event. The only problem was the queues for deluxe hydraulic cabinets *After Burner* and *Out Run*, but that's to be expected with two of Sega's best arcade games."
Mike Wilcox
(JetSetWilly)

"Loved catching up with Jim [Bagley], had a chat with Andrew Hewson and bought some stuff from David Rowe. I spent a lot of time at the talks, too."
Jake Warren
(JakeyW)

OH MY GOD, THEY REVIVED KENNY

A prototype of the very first *South Park* videogame has been found and leaked online. The platform puzzle game was under development for Acclaim by Crawfish Interactive, but was supposedly shelved as the show's creators, Matt Stone and Trey Parker, felt that the Game Boy Color was an inappropriate platform given its younger audience. The leaked game features the kind of adult-oriented humour you'd expect from the notoriously profane cartoon comedy. The game was later reskinned for European release as *Maya The Bee & Her Friends*, and then reworked into *Mary-Kate & Ashley: Get A Clue!* for the American market.

QUARTER MUNCHER

Numskull is collaborating with Namco on a new range of miniature arcade machines, the Quarter Arcade range. The range is named for the fact that the machines will be fully playable quarter-scale replicas of the originals, with authentic wooden construction and accurate sizes right down to details like properly proportioned buttons and joysticks. Preorders have opened for the first machine in the range, *Pac-Man*, which is scheduled to launch in December 2018 priced at £149.99, as a limited edition of 10,000 units. Further Namco releases are planned, with *Galaga*, *Galaxian* and *Ms Pac-Man* following in 2019.

PARADISE LOST

ROM SITES INCLUDING EMUPARADISE SHUT SHOP DUE TO COPYRIGHT CRACKDOWN

Some of the largest and most well-known hosts of retro gaming ROM files have essentially shut down recently, as stronger enforcement measures are taken against copyright violators. Nintendo filed a lawsuit in late July against the LoveROMs and LoveRetro websites, alleging "brazen and mass-scale infringement" of its copyright. LoveRetro ceased operations immediately, while LoveROMs removed its Nintendo files before shutting down completely.

The move has had a wider impact too, as Emuparadise remains online but has ceased its distribution of copyright infringing content, which had included games from Atari 2600 to Nintendo Wii, as well as magazines, comics and more. A statement on the site explained that "we at EmuParadise have been dealing with similar issues for all 18 years of our existence", mentioning threatening letters and sudden server shutdowns due to complaints. Emuparadise's statement continued, stating, "It's not worth it for us to risk potentially disastrous consequences. I cannot in good conscience risk the futures of our team members who have contributed to the site through the years."

The shutdowns have provoked an outcry on social media. Many players have complained that such sites are popular due to a lack of convenient and legal alternatives for acquiring older games, citing reports that film and music piracy are declining due to the rise of streaming services such as Netflix and Spotify. Despite this wave of takedowns, copyright infringement will prove a tough nut to crack – many alternative download sites are still in operation, offering much of the same content with equal ease of access. *



» Trying to find any ROMs on Emuparadise now directs users towards a statement, explaining their removal.

PRAISE BE

GODS REMASTERED MAKES ITS PUBLIC DEBUT

The Bitmap Brothers' classic platformer game *Gods* is returning to current-generation consoles and PC this year, with Robot Riot handling development. The public demonstration was highlighted in Bitmap Brothers cofounder Mike Montgomery's talk at Play Expo in London, where the Xbox One version was playable for attendees. *Gods Remastered* will feature the same gameplay and level design as the original Amiga game from 1991, but with a new soundtrack and new 3D visuals including dynamic lights and shadows. If you prefer, the option to play with the original pixel art is also available, at an improved framerate of 60 frames per second. You can switch between the classic and remastered modes at the touch of a button midgame, too.

Robot Riot plans to release *Gods Remastered* in autumn 2018, for Xbox One, PS4, Switch, PC, iOS and Android. You can follow the developers' progress at facebook.com/godsremastered.


» [PC] This side-by-side comparison demonstrates how much work has gone into the remaster.


» [PC] And here's a full screenshot – it's quite the makeover, isn't it?

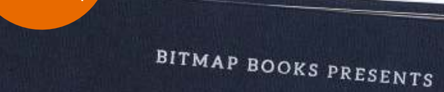


The Art Of Point-And-Click Adventure Games

PICK OF THE MONTH

Few companies make coffee table books as lush as those by Bitmap Books. The latest volume is an absolutely gorgeous love letter to the point-and-click adventure genre, awash with fantastic imagery and glorious photography. There's far more to Sam Dyer's book than just pretty pictures, however, and it's filled with a number of interviews from veterans of the genre, including Charles Cecil, Ron Gilbert, Tim Schafer, Hal Barwood, Jane Jenson, Al Lowe and many others. Even if you're not a fan of point-and-click games it's hard not to be impressed by the sheer amount of effort put into this book.

Price: £29.99
From: bitmapbooks.co.uk





Frogger/Ms Pac-Man Plug & Play

The latest plug-and-play devices from Funstock are based on classic arcade games from the golden era of gaming. *Frogger*, *Space Invaders*, *Double Dragon* and *Ms Pac-Man* are all currently available and are all specifically themed up to capture the spirit of each game (the *Frogger* one is particularly nice). Each device plugs straight into your TV via the supplied AV cable and requires three AA batteries.

Price: £19.99 **From:** funstockretro.co.uk

Pac-Man Heat-changing mug

Fans of Namco's classic maze game won't want to miss out on this smart ceramic mug. Simply add a hot beverage and you'll end up with a classy recreation of the original Atari 2600 box art, complete with scared ghosts and a giant Pac-Man. The same cool image is displayed on both sides of the mug, ensuring you'll always have something to look at while you're enjoying your drink.

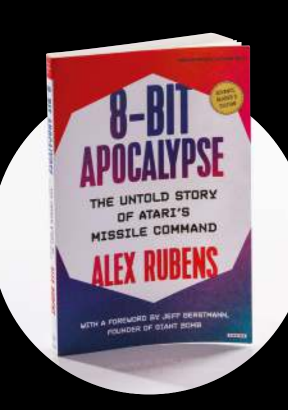
Price: £11.99
From: amazon.co.uk



Space Invaders UFO Raglan T-Shirt

We've been celebrating our *Space Invaders* cover by walking around in this nifty-looking long-sleeved T-shirt. It features a smart monochromatic design, putting the UFO ship front and centre, along with the title *Space Invaders* in Japanese katakana text and comes in a variety of different sizes, from XS to 2XL. It's the perfect thing to wear while you aim for a *Space Invaders* high score.

Price: £16.99
From: numskull.co.uk



8-Bit Apocalypse: The Untold Story Of Atari's Missile Command

While Atari's classic game has been covered many times in the past, it's never been to this impressive depth. Author Alex Rubens has not only spoken to Dave Theurer, but also Nolan Bushnell and Phil Klemmer, who wrote an entire episode about the game for the TV series, *Chuck*. The book is as much a story about Atari's early days as it is about *Missile Command*, meaning there's plenty to enjoy.

Price: £20.41
From: amazon.co.uk

Here's my bio... Paul Rose
Paul Rose is probably better known as Mr Biffo – the creator and chief writer of legendary teletext games magazine *Digitiser*. These days, he mostly writes for kids TV, but can still be found rambling on about games, old and new, for his daily website, Digitiser2000.com.

"These days, arcades are all ticket-spewing monstrosities and fruit machines"

Arcade perfect

As I write this, I'm about to head off for a weekend in Dymchurch with my parents. A caravan holiday by the coast was a pilgrimage we made annually when I was growing up. Indeed, the last time I visited Dymchurch was in 1975 or thereabouts, when I was mistaken by the camp's children's entertainer, one Uncle Ricky Dinkle, for a girl. I'd gone on stage to try and win a talent competition with a tear-jerking rendition of *The Wheels On The Bus*.

I have a lot of memories from those holidays, but it's fair to suggest that some of my favourites are of my first encounters with videogames. We didn't get a *Pong* rip-off at home until the late Seventies or early Eighties, and it was in the arcades that I bonded with my grandparents on the penny falls, and those weird Wild West shooting galleries they all used to have.

More than those, however, I became particularly obsessed with the early mechanical arcade shoot-'em-ups. The one I remember most vividly was Sega's Killer *Shark*.

If you're too young to know what I'm talking about, *Killer Shark* was typical of these early games, in that rather than have the gameplay displayed via a monitor, an illuminated, physical, shark target would move around a playing area designed to look like the deep sea. The player would aim a harpoon-style lightgun at it, and a direct hit would be rewarded with the shark thrashing around. Indeed, *Killer Shark* even appears in the movie *Jaws*, briefly, as some neat foreshadowing.

Everything about *Killer Shark* fascinated me. I couldn't fathom (pun not intended) how it could possibly work, but I loved that it did. I loved the visuals displayed on the sides of the machine – a stylised scuba diver and shark – and the colourful logo banner. I loved the mechanical timer. Everything about it, regardless of how basic it was, felt immersive. Which, surely, is exactly what games should be?

There are other mechanical marvels I remember from that era; Sega's *Monte Carlo* - the first time I ever placed my hand on a steering wheel – and a thing where you had to control a plastic helicopter on the end of a rod, avoiding obstacles as it flew around a mountain. Also, Midway's *Seawolf*, where you'd sink ships while peering through a submarine telescope. I loved how tactile these games were; by giving me something to play with, something I could interact with, they'd inspire my imagination in ways I couldn't achieve at home.

Suffice to say, I shall be seeking out the arcades when I'm down in Dymchurch. I can't imagine any of them will still have anything as special as *Killer Shark* cabinet. These days, arcades are all ticket-spewing monstrosities and fruit machines. They still have the noise and the garish carpets, but they're no longer what they once were for me: a magical doorway where you'd be transported on adventures. *

Do you agree with Paul's thoughts? Contact us at:



darran.jones@futurenet.com 



Pixel Perfect

The ex-Ocean artist Simon Butler discusses his new venture Dinosaur Pie

Simon Butler has been a graphics artist for over 30 years, honing his craft at the likes of Ocean Software, Virgin Games and Imagine Software. Now he's taking his love of pixel art and pop culture to new levels in order to create a selection of different designs that will instantly make an impact on those who grew up in the Seventies and Eighties. Simon tells us all about Dinosaur Pie.

Why set up Dinosaur Pie?

I started doing low-res portraits of friends and family and a few of them suggested I try my hand at other images to see if there was a market. My youngest daughter gave me dozens of suggestions and it just snowballed from there.

Why focus on the iconography from the Seventies and Eighties?

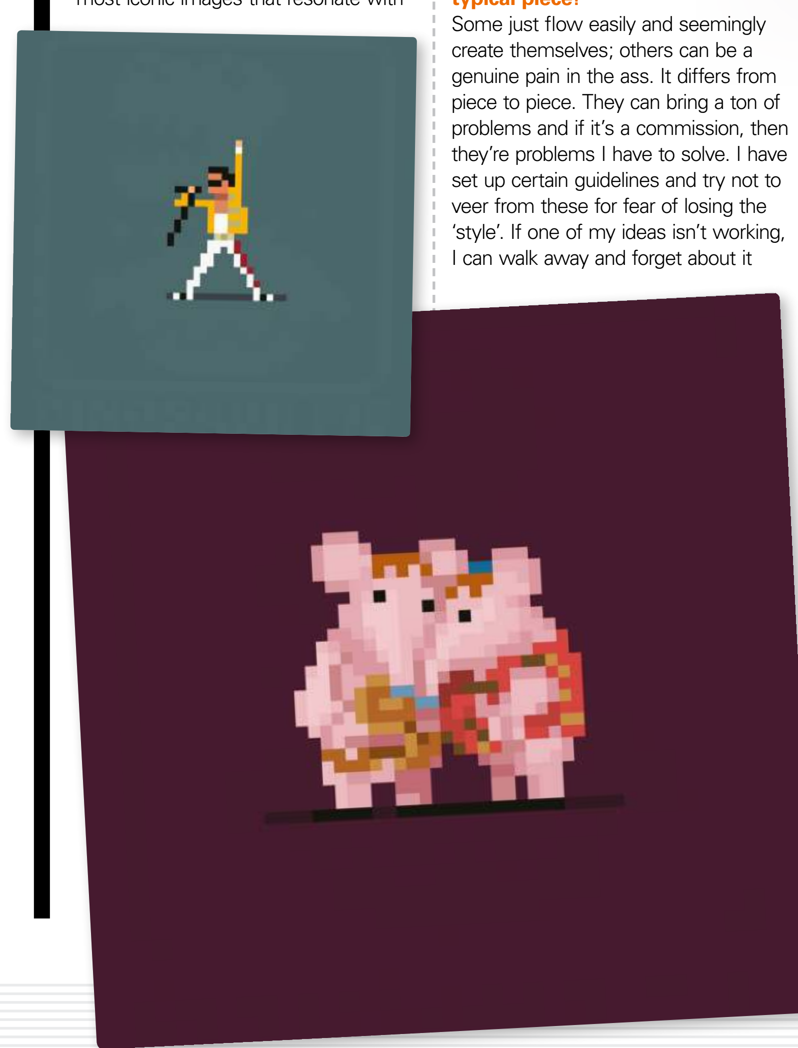
These two decades tend to contain the most iconic images that resonate with the target audience. Here you can find movies, TV shows and music stars that have stood the test of time and are not only wildly popular, but have that 'retro' feel about them that was my main intention. It's a golden age, seen by some as tacky and cheesy but by others as a time of classic viewing with stars that were part of an important era, something that was "theirs" as they were growing up. I'm just creating funny little images that I hope resonate with that special time in people's lives.

What tools do you tend to use to create your work?

I use Pro Motion by a German studio, Cosmigo. It's been my sole art tool for game graphics for over 20 years. It's very similar to the Amiga software Deluxe Paint, so the transition from one to the other was incredibly easy and in my opinion, it just can't be bettered.

How long does it take to create a typical piece?

Some just flow easily and seemingly create themselves; others can be a genuine pain in the ass. It differs from piece to piece. They can bring a ton of problems and if it's a commission, then they're problems I have to solve. I have set up certain guidelines and try not to veer from these for fear of losing the 'style'. If one of my ideas isn't working, I can walk away and forget about it rather than try to work miracles with as few pixels as possible. Some take minutes; others haunt me for days.





> "My work on my Dinosaur Pie product is a throwback to my ZX Spectrum days"
> Simon Butler

What do you do to make your work stand apart from other pixel artists out there?

My art has always been cartoonish, so that has put me in a different box to a lot of other game artists. My work on my Dinosaur Pie product is a throwback to my ZX Spectrum days where you had to suggest shapes with a minimal amount of pixels, but now I can throw in as many colours as I see fit. I never gave this venture any conscious thought; it seemed the solution to solve the graphical problems.

How do you add personality to your creations?

The majority are side-on stances, but if an action 'pose' is required, I do the best I can in the set size. I make an effort to not have them turn into 'sprites' and while a few have come close, I feel there's a continuity of style in the majority of the work to date.

What would readers need to do if they wanted a bespoke design?

Contact me via my website, Facebook or email. I'm online almost all the time and open to all suggestions. *

You can reach Simon at simonbutler57@hotmail.com and view his work at dinosaur-pie.co.uk.



» You can get all the Doctor Who incarnations separately or as a single print.

GAMESTOP REVEALS NEW ARCADE RANGE

POPULAR RETAILER RELEASES A NEW SET OF ARCADE CLASSICS

What makes a videogame feel great? Is it the game itself, the friends you enjoy playing it with, or the machine powering the amazing experience that you're completely engrossed in? For most of us, the answer is all three. And if you happened to chance upon a bustling amusement arcade during your youth then you'll fully understand why.

Games played on a classic arcade cabinet seemed to come alive. They'd pull you in with graphics that would pop from the screen and provide robust, chunky controls that perfectly complemented the game.

Above all else, though, they would entice you with audio that would not only scream to be heard over the sounds from other games but compete with the chatter and laughter filling the room. That's because arcades used to be a destination, a place for you to hang out with your pals and simply have fun. And if you want to replicate that enjoyment, then how better than a modern arcade cabinet packed with the greatest of hits?

Step forward the Arcade1UP cabinets, a range of amazing machines that bring the arcade home with no coins or tokens required. They allow your favourite games from yesteryear to come back to life in the way that they should always be played – with arcade-style joysticks, trackballs and buttons. They're available at a wallet-friendly introductory rate of $299 and cover a variety of classic games. But if you want to guarantee one, then you'll need to be quick. GameStop, which is the only retailer allowing preorders in store, expects them to sell as fast as your reactions will need to be to master these games. You can, however, also order at gamestop.com.

But why are they set to be popular? Well, the cabinets will inevitably light up your room thanks to a 17-inch LCD screen that will perfectly showcase the games in their original form, with the same graphics and sounds that made them instantly appealing the first time around. The machines will also turn heads for their sheer presence since each cabinet stands at three-quarters the size of the original machine.

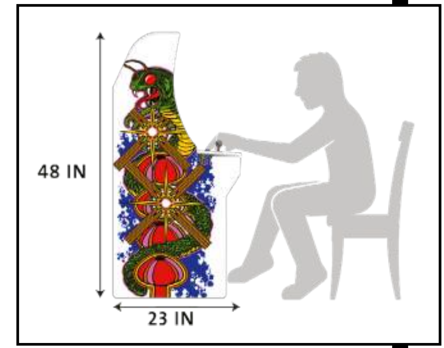
Most crucially, however, are the classic games you'll be able to enjoy. GameStop will have a finger-twitching four cabinets in total and each one contains up to four games.

- ***The Asteroids*-led cabinet comes with the addition of *Major Havoc, Lunar Lander* and *Tempest*.**
- **Rampage is bundled with Gauntlet, Joust and Defender.**
- ***Centipede* includes *Missile Command, Crystal Castles* and Atari *Millipede*.**
- ***Street Fighter II Champion Edition* has the addition of *Super Street Fighter II Turbo* and *Super Street Fighter II: The New Challengers*.**

But just as important as the selection of games, is the look of the cabinets, each of which are faithfully decorated with the eye-catching marquee and side artwork of the leading title.



» The controls are authentically retro, so fans of classic arcade machines should feel at home.



» The cabinets aren't full size, meaning they should be relatively easy to move around.

This was no mean feat for Arcade1UP, which went to great lengths to find the original art sheets in order to recreate them, helping those memories to come flooding back.

To add to the fun, the cabinets need to be self-assembled so you get a chance to go behind the scenes of the machines and get up close with each of the parts inside and out. This is a very simple process and it has enabled the makers to keep the cost of these impressive cabinets down.

Don't forget, you need to get your preorder in to guarantee one or more of the cabinets, though. Ask the staff at your local GameStop for more information or head over to its website at gamestop.com. *

SEPTEMBER 2001 – Nintendo unleashes the GameCube, the rest of the gaming world is caught sitting on its hands, and a tragedy disrupts release schedules. Nick Thorpe looks back at an infamous month...



[GameCube] Former bitter rival Sega was the only third party with a game ready for Nintendo's launch.



NEWS SEPTEMBER 2001

On 1 September, England's football team handed Germany a 5-1 defeat in Munich, becoming only the second team to defeat Germany at home in a World Cup qualifier. Carsten Jancker put Germany ahead after six minutes, but Michael Owen equalised six minutes later, with Steven Gerrard putting England ahead in stoppage time. Owen then completed a hat trick in the second half, with Emile Heskey rounding off the scoring.

Charles Ingram, a former major in the British Army, cheated at the game show *Who Wants To Be A Millionaire?* to win £1 million. He was assisted by his wife Diana and lecturer Tecwen Whittock, a serial quiz show contestant and former *Brain Of Britain* semi-finalist, who would cough when the correct answer was read out.

On September 11, members of the terrorist group al-Qaeda hijacked four flights to commit suicide attacks in the USA. Two planes were flown into the twin towers of the World Trade Center in New York, and a third was flown into the US Department of Defense HQ, the Pentagon in Arlington, Virginia. A fourth flight was planned to strike a target in Washington DC, but crashed near Stonycreek, Pennsylvania after the passengers fought back. The attacks killed almost 3,000 people and injured over 6,000 others.

THE LATEST NEWS FROM SEPTEMBER 2001

After having the market practically to itself for the year so far, the PlayStation 2 finally got some competition in the form of Nintendo's GameCube, which released in Japan with three games – *Luigi's Mansion, Wave Race: Blue Storm* and *Super Monkey Ball.* The Japanese financial newspaper Nikkei reported that launch weekend sales were estimated to be around 280,000 to 300,000 from an initial shipment of 450,000 consoles.



[PS2] *Lotus Challenge* wasn't flashy, overstated or exciting – but it was bloody hard.

This was significantly lower number of units than the Game Boy Advance sold at launch earlier in the year, and considerably fewer than the 900,000 PlayStation 2 consoles Sony shifted at its launch a year and a half earlier. Software numbers weren't made available, and reviews of the games would have to wait until the press got their import machines.

The wait must have been excruciating, as there was once again very little going on in the UK. *N64 Magazine* in particular was filled with previews for GameCube games including *Super Smash Bros Melee, Star Wars: Rogue Leader* and *Phantasy Star Online*. Of course, that was in part due to a dearth of actual N64 content, with only *Paper Mario* reреviewed to mark its UK release. Handheld Nintendo fans had an easier time of things, with the magazine dishing out 4/5 scores for Game Boy Advance games *Bomberman Tournament* and *Hot Potato*, and the same for Game Boy Color games *Tomb Raider: Curse Of The Sword* and *Scooby Doo: Classic Creep Capers*.

Of course, Nintendo loyalists weren't the only ones looking to the future. *Dreamcast Magazine* was reduced to reviewing old import games, and even then the best one available was the merely decent *Industrial Spy: Operation Espionage* (74%, *Dreamcast Magazine*). Gamers still on the original PlayStation had choices, but few good ones as the month's release schedule was clogged with dreck like *Roswell Conspiracies* (3/10 *Official PlayStation Magazine*, 49% *Play*), *Who Wants To Be A Millionaire? Junior* (4/10 *Official PlayStation Magazine*, 37% *Play*), *Flintstones: Viva Rock Vegas* (4% *Play*) and *Sabrina The Teenage Witch: A Twitch In Time* (1/10 *Official PlayStation Magazine*). The only noteworthy game of the month was *The Italian Job*, a somewhat anachronistic film licence. Much like *World's Scariest Police Chases*, the game borrowed its mission-based open world driving template from the successful series of *Driver* games.

THIS MONTH IN…

Edge

This month saw Edge getting excited by *Burnout*, calling it "unashamedly fast and frantic" and stating it had "some of the most graphically rich racing environments yet seen on Sony's black box". It was also a good month for Sega's *Out Trigger*, with *Edge* concluding it was enhancing the genre with "subtle - yet significant - additions".



N64

The GameCube Clinic aimed to inform readers about Nintendo's new console, and retailer Charlie Ambrose of CA Games was one of the experts on hand that *N64* spoke to. When asked to predict the UK price and release date for the machine, he responded "March, £199.95. You can bet on it." Close, but no cigar Charlie.



Play

"I love reading your magazine, and own a PlayStation but NOT a PS2," writes a particularly concerned reader, Marc Nuttall. "Please could you tell me whether you still focus on the PlayStation, or have you decided to cut back on it?" It's never fun realising that your primary gaming platform is nearing the end of its life cycle.



[PlayStation] We didn't want to do a joke about blowing the doors off, so we merely referenced doing one.



[GameCube] There's no denying that *Luigi's Mansion* looked lovely, but it didn't inspire much enthusiasm at launch.

With little else to shout about, *Official PlayStation Magazine* put the game on its cover and its demo disc, and gave it a score of 8/10.

For those PS2 owners expecting the future now, pickings were still relatively slim. *Lotus Challenge* was the main review in *Play*, but Kuju's racing simulation failed to enthral reviewer Mark Crawley. Noting that the game "wants to be Ferrari F355," he found that the game "requires the kind of precision and sobriety demanded by the most nightmarish of driving examiners" and scored it 72%. Rescue pilot game *City Crisis* fared no better, with Will Johnston remarking that it was "a game whose mechanics could quite easily be replicated on a mid-Eighties LCD handheld game", and awarding it 70%. *Edge* considered the game "well constructed and delicately designed", but felt that it lacked variety and depth and gave the game 5/10. Importers had more to be excited about thanks to games such as *Gitaroo Man*, *Twisted Metal Black* and *Ka*, but UK gamers would have to sit and wait.

Even PC gamers were subject to a relatively dull month. If you weren't interested in *Microsoft Train Simulator* (80% *PC Zone*), the big game of the month was *Arcanum: Of Steamworks & Magic Obscura*. Blending steampunk elements into the usual high fantasy RPG setting, the game impressed Chris Anderson of *PC Zone*, who praised the game's multiple combat modes and effectively told plot. The game was awarded 84%, with the main gripe being an antiquated look. *Edge* was less impressed, however, awarding the game 5/10 and opining that "the unwieldy and flabby interface conspires to thwart the player's attempts to get to grips with the game universe". Though *PC Zone* was closer to the critical consensus in this case.

In a rare case of real world events affecting the gaming world, a number of games were impacted in the aftermath of the terrorist attacks of 11 September. Konami's eagerly awaited *Metal Gear Solid 2* depicted a terrorist group operating in New York, but would still make its November release date – albeit with minor edits to remove the World Trade Center from scenes. In Japan, the forthcoming PS2 building demolition puzzle game *Buile Baku* had its planned 29 November release postponed. The Dreamcast aerial combat game *Propeller Arena* was delayed until January 2002 worldwide,



[PC] You can see what PC *Zone* meant about dull graphics – *Arcanum* is a bit bland to say the least.

with Sega stating, "Although the game content does not deal with terrorism in any way, it is possible for a determined individual to deliberately play the game in a manner that generates images similar to those we have seen on the news. We want to avoid causing any additional grief to those involved in this week's tragedy and feel this is an appropriate action."

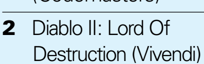
Join us again next month for early GameCube impressions, the countdown to the Xbox launch and the departure of a much-loved gaming magazine. ✱



SEPTEMBER 2001

PC

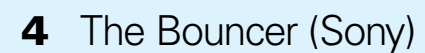
1. Operation Flashpoint (Codemasters)
2. Diablo II: Lord Of Destruction (Vivendi)



3. Emperor: Battle For Dune (EA)
4. The Sims: House Party (EA)
5. Black & White (EA)

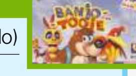
PLAYSTATION 2

1. Red Faction (THQ)
2. Rugby (EA)
3. Escape From Monkey Island (Activision)
4. The Bouncer (Sony)



5. Extermination (Sony)

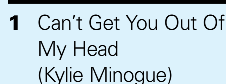
N64



1. Banjo-Tooie (Nintendo)
2. Excitebike 64 (Nintendo)
3. Kirby 64: The Crystal (Nintendo)
4. WWF No Mercy (THQ)
5. Conker's Bad Fur Day (THQ)

MUSIC

1. Can't Get You Out Of My Head (Kylie Minogue)





2. Hey Baby (DJ Otzi)
3. Smooth Criminal (Alien Ant Farm)
4. Mambo No 5 (Bob The Builder)
5. Luv Me Luv Me (Shaggy)

Ice Climber

MAKING A MOUNTAIN OUT OF A MOLEHIL



» NES » 1985 » NINTENDO R&D 1

Recently I've had a compulsion to buy and play *Celeste*, a 2018 retro-style twitch platformer about a young woman who wants to scale an icy mountain. I'm having a frugal month, though, so I had to rummage around the **RG** office for alternatives. That's when I had the brainwave to try out *Ice Climber* on the NES. It's basically the same, right? A big snow-capped mountain to scale, hazards everywhere and a bit of fruit/vegetable collecting sprinkled in for good measure. Close enough. It'll do.

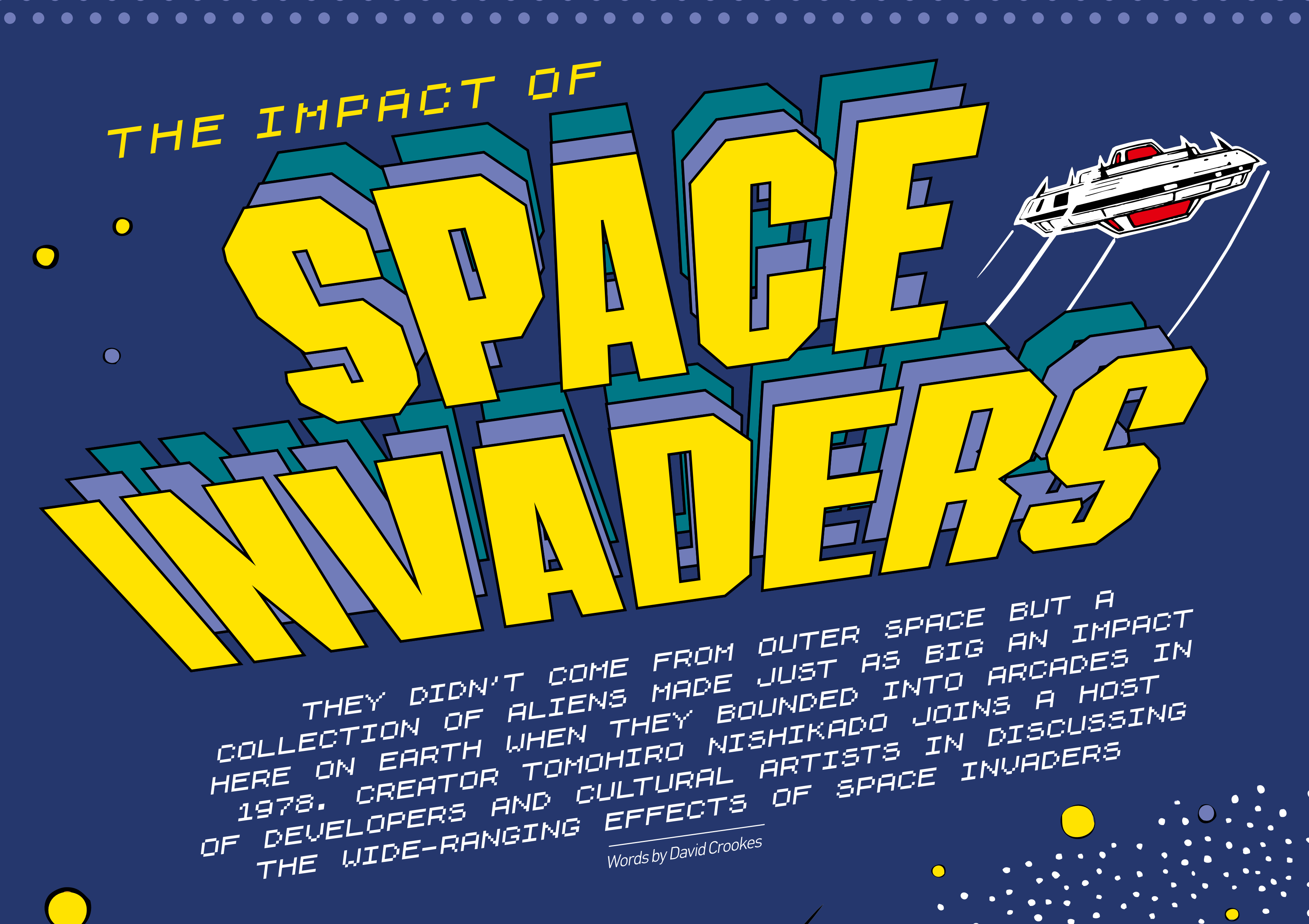
I was after a challenge, and boy did I find one. To boot up *Ice Climber* is to start an unforgiving uphill slog, where you frequently find you doom at the hands of perilous drops, deadly creatures and your own sheer incompetence. You also have to wrestle with the shonky jumping, where you often find yourself tumbling to your doom despite actually connecting with the floor.

This wouldn't bother me too much – a lot of retro games have slippery and imprecise controls by today's standards – but at times *Ice Climber* wants you to navigate jumps and jump up through holes that are *one block wide*. Maybe it's because I'm out of practice with platformers but, jeez, that's a bit of a tall order.

If you hadn't already gleaned, I don't get along well with *Ice Climber*. It's a little too imprecise for my tastes, and the arcade-style game design doesn't grab my attention enough to keep me playing.

Still, despite not being all to fussed about the game, I'm a fan of its characters – specifically the Ice Climbers themselves. I frequently pick Popo and Nana to take part in scuffles in *Super Smash Bros Melee* – they're too cute and ridiculous *not* to pick, really. As for my mountain climbing compulsion, though… I'm just going to have to cough up the cash for *Celeste*. *


8
7
6
5



THE IMPACT OF SPACE INVADERS

THEY DIDN'T COME FROM OUTER SPACE BUT A COLLECTION OF ALIENS MADE JUST AS BIG AN IMPACT HERE ON EARTH WHEN THEY BOUNDED INTO ARCADES IN 1978. CREATOR TOMOHIRO NISHIKADO JOINS A HOST OF DEVELOPERS AND CULTURAL ARTISTS IN DISCUSSING THE WIDE-RANGING EFFECTS OF SPACE INVADERS

Words by David Crookes

Throughout the best part of the Seventies, game developer Tomohiro Nishikado looked towards America with aspiration in his eyes. In turn, the US peered back at Japan with a dollop of suspicion.

But that was symptomatic of the state of these nations during that period — a decade in which post-war America, in line with much of the western world, suffered economic stagnation while the far east enjoyed rapid growth.

Nishikado was a talented young developer, an engineering graduate who had been employed by the Japanese vending machine manufacturer Taito since 1969. He'd had reasonable success with a variety of games, starting with the *Pong* clone *Elephong* in 1972, followed by *Davis Cup* and *Soccer* in 1973, again inspired by the classic game from Atari.

TIMELINE

Charting 40 years of repelling invaders

1978

Space Invaders released in the arcades

Yellow Magic Orchestra samples *Space Invaders* sounds in the single *Computer Game*

1979

Gamers could pop their name on the high score table in *Space Invaders Deluxe*

A cocktail table follow-up, *Space Invaders II*, appears



» [Arcade] The game mirrored your own anxiety: the more successful and palm-sweaty you were, the faster it became.



» [Virtual Boy] You'd be seeing red if you played *Space Invaders* on the Virtual Boy but that was entirely down to the screen.

The titles he worked on would show great promise and innovation. *Speed Race* in 1974 had scrolling graphics, a racing wheel controller and a choice of beginner or advanced play; *Western Gun*, or *Gun Fight* in the US, was the first to bring human-against-human violence to videogames the following year.

Yet at that time America was dominating the videogame industry. Atari in particular had seized the market and it was leading in arcades – and homes, too, thanks to the launch of the 2600 console. Nishikado became hooked on Atari's *Breakout* and the more he played, the more determined he became to better it.

"My goal at that time was to catch up with the United States," he tells us. But in that aim, he was not alone. For throughout the Seventies (and going into the Eighties), Japan had been snapping at the heels of key American businesses, most notably the automobile industry. American manufacturing had been in decline and power was swinging.

As such, there was rising discrimination and an increase in what has been dubbed 'Japanophobia' – a revival of anti-Japanese sentiment that predated the Second World War. "There was this interesting tension as the rise and strength of the Japanese economy really made an impression on the US national identity as the great country of innovators and inventors," says the academic game designer professor Lindsay Grace.



» Tomohiro Nishikado is the creator of *Space Invaders*.

With that in mind, Nishikado's next game, *Space Invaders*, would face multiple battles. Alien invasions aside, it had to fight against a fear of Japanese influence on American culture. And, there were worries the game was proving too distracting for children.

On the issue of Japanophia, however, Lindsay contends *Space Invaders* "gave more fodder or proof for not being afraid". Indeed, it opened up gaming and its huge potential right across the world. "It's hard to know what would have happened to gaming without *Space Invaders*," says Mark Cutmore, head of commercial enterprises at the Science Museum Group.

Space Invaders landed with impeccable timing. "Videogames were in the ascendent, a new form of entertainment with untold promise," explains Iain Simons, director of culture at the British Games Institute. As such, it was a time of great experimentation, of pushing the available tech and creating new genres.

To that end, Nishikado began work on *Space Invaders* in 1977 and he created a microcomputer from scratch to do so. It was the first Japanese game to use microprocessors and it became the most advanced arcade game available. Built around Intel's 8080 8-bit processor rather than using discrete logic chips, it made for a better performance.

Perhaps more importantly, *Space Invaders* also anchored itself to the predominant themes of mainstream culture at the time. "This era was the dawn of the space age – both in reality with the Apollo moon landings, the launch of the space shuttle, communications and spy satellites, interplanetary probes, and with science fiction such as *Star Wars*, *Star Trek*, *Dune* and *Aliens*," says Eugene Jarvis, who went on to produce his own sci-fi shooter, *Defender*, in 1981. ▶

Super Invader becomes an early clone

Funny Stuff releases the song *Disco Space Invaders*

The Pretenders release the hit song *Space Invader*

Space Invaders lands on the Atari 2600

10,000 players compete in the National *Space Invaders* Superbowl run by Atari

Bally Midway releases a pinball version

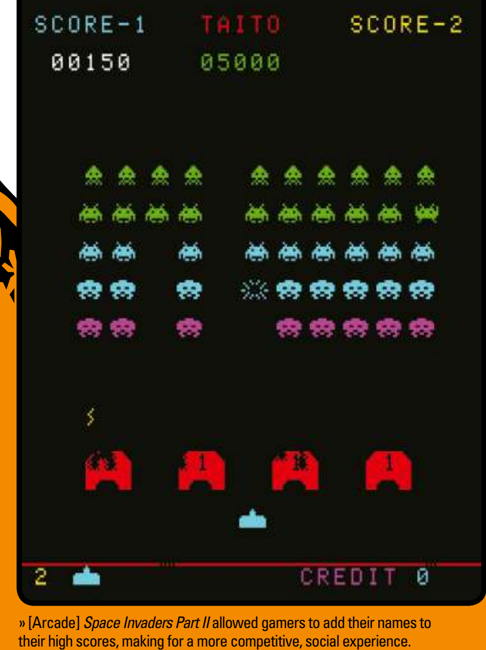
1979 — 1980



» [Mega Drive] A rather faithful rendition of the original game, *Space Invader 90* nevertheless had enhanced sound and graphics.

It wasn't always going to be that way. Initially, Nishikado considered aeroplanes as the enemy, but he switched to humans for technical reasons. Taito wasn't happy and felt it would be too immoral to have gamers blasting away at people so Nishikado chose to set the game in space instead. It was, he tells us, "a convenient theme for videogames unlike sports that are bound by specific rules". He chose well, as history demonstrates.

"*Star Wars* had just captured the imagination of the entire world, not just as a movie, but as a universe," Iain continues. "We didn't just buy a ticket to watch the film, we bought the action figures and the lunchbox to take our sandwiches to school in. *Space Invaders* arrived at the peak of that first wave of a new, popular science fiction explosion. It was a new, aspirational technology that shackled itself to the moment."



» [Arcade] *Space Invaders Part II* allowed gamers to add their names to their high scores, making for a more competitive, social experience.

» [GBA] *Space Invaders* is such a simple, casual game that it works perfectly well on smaller screens.

Even so, *Space Invaders* still had to be attractive in itself and was always at the forefront of Nishikado's mind. It meant that when *Space Invaders* was released in the arcades in Japan in 1978, its impact was immediate, with some pachinko parlours and bowling alleys soon rebranding themselves as *Space Invaders* arcades, filled to the brim with coin-op machines.

"I was surprised by media reports saying that pachinko parlours – a leading industry in Japanese entertainment at that time – were being invaded by the game," Nishikado says. He was also astonished to read that the game was causing a shortage of 100 yen coins.

"It is true that newspapers reported *Space Invaders* caused the shortage of 100 yen coins and, consequently, Nippon Ginko's increased production of 100 yen coins, but I didn't feel that much at the beginning of the boom," Nishikado explains. "One day, I happened to see the tyre of a truck weighed down by a load of collected 100 yen coins in the car park at Taito's headquarters. This surprised me and I realised that *Space Invaders* had become a phenomenon."

Although many a gaming expert have since dispelled the yen shortage as fake news, *Space Invaders*' popularity was very much true. But even though it was eating up cash, there were fears in Japan that the game was leading to delinquency and children playing truant.

"It was an unanticipated fad for the amusement industry and so rules or regulations were not able to catch up with that instant phenomenon," Nishikado says. "But if I, as a games creator was to look back in a positive way, I'd say it heralded a new era of entertainment in Japan."

There is no denying that. When Nishikado visited the Amusement and Music Operators Association show in 1978 when the game was introduced, he was astounded. "I saw a lot of people waiting in the queue in front of the *Space Invaders* cabinet and, at that moment, I



felt that our games might be overtaking the videogame giant." The US had competition.

It was 1981 and a number of parents in the affluent village of Irvington in the state of New York were waging a war of sorts against their children. They were incensed at the plethora of coin-op machines which had been invading their space for a few years and they'd manage to convince the authorities to do something about them.

The proposal was dramatic and involved banning anyone under the age of 17 from playing. It also sought to impose a $100 licensing fee for machines and restrict the number that any single establishment could have to two. "I hear they're addictive," said mayor Reginald F Marra, as the village prepared to vote on the issue.

Marra was against the age limit, but he sympathised with the concerns. Just as in Japan, the games were eating up pocket money and while that was good news for the owners, they were being blamed for kids going without lunch or arriving late at school.

The coin-op had been brought to America by Midway and it had quickly appeared in cafes and pizza parlours in cities across the US. But although arcade machines had been making in-roads into American culture for the best part of ten years, they had not attracted quite the same level of attention as the Japanese newcomer.

"I found a *Pong* machine in a landromat in Kent, Ohio, in 1975 and I decided that I preferred spending my quarters on drying clothes," scorns games developer Matt Householder, who went on to develop *Moon Patrol*, for the ColecoVision. "*Space Invaders* was the first videogame (coin-op or otherwise) that I found was truly fun to play." He wasn't alone.

"Suddenly videogames had some character," Iain says. "Sure, they were two dimensional and rudimentarily animated but the aliens in *Space Invaders* had enough character to make themselves feel like characters. *Pong* was an astonishing achievement, but it didn't provide videogames with a figurehead. *Space Invaders*' marauding, oceanic aliens delivered such a powerful character design that they're still used to symbolise videogames to this day."

As it proved, 1978 was a turning point both for the videogame industry and the growing backlash against it. The



» Mark Cutmore works at the Science Museum Group.



1982 — Acclaimed author Martin Amis writes *Invasion Of The Space Invaders*

Space Invaders grosses $2 billion

1983 — *Pepsi Invaders* is commissioned by Coca-Cola

1985 — *Return Of The Invaders* is released

Taito releases the game on the NES in Japan

1987 — KP Snacks sells Space Raiders crisps

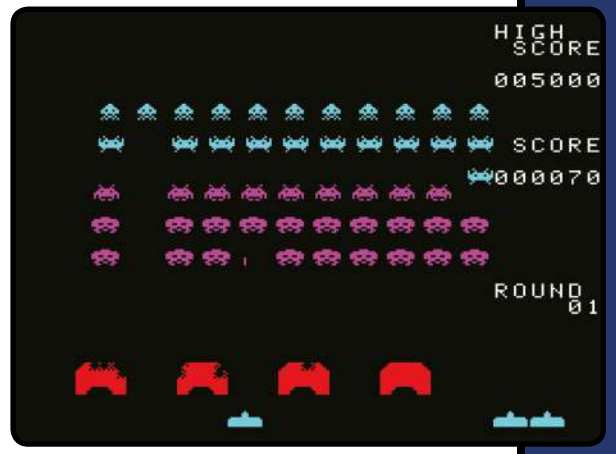
same happened in the UK, the rest of Europe and other markets around the world. One of the main problems was that *Space Invaders* was so attractive and addictive, although some people found other, more bizarre reasons to outlaw this particular invasion.

» Iain Simons works at the British Games Institute.

In *Japanamerica: How Japanese Pop Culture Had Invaded the US*, author Roland Kelts writes of *Pac-Man* creator Toru Iwatani's "bafflement when discussing the banning of Space Invaders in several southern states in the Eighties – allegedly because aliens are not in the Bible, and because of the game's violence towards them". Unlucky for them, *Space Invaders*' success only led to more shooters. In the Eighties, Japanese arcades were dominated by them.

"As the most popular game of the era, *Space Invaders* became the target of fear but the cause was that people didn't understand the emerging trend for gaming or recognise the positive aspects of it," argues Mark. "The same fears had been levelled at television in its early days and at new genres of music like punk and hip-hop."

As it happens, the proposed ban on children in Irvington was thrown out and the planned restrictions on cabinet numbers were loosened to three machines per establishment. Yet arcade games – *Space Invaders* in particular – continued to attract as much negative attention as it did positive. In 1981, George Foulkes, Labour MP for South Ayrshire in Scotland tried to push the Control of Space Invaders and Other Electronic Games bill through the UK parliament.



» [PC Engine] With better weapons and lovely backdrops, Taito's porting of *Space Invaders* to the PC Engine in 1990 was a success.

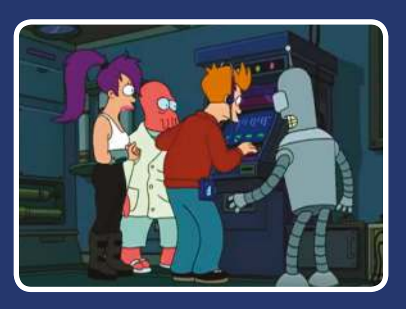
WORLD DOMINATION

How Space Invaders made its way into the zeitgeist



MUSIC

■ Musicians were inspired by *Space Invaders* after its launch and, even putting aside the sampled audio in the messy medley that was Yellow Magic Orchestra's hit, *Computer Game*, fans could enjoy *Disco Space Invaders* by Funny Stuff in 1979, *Space Invader* by The Pretenders in 1980 and *Space Invaders* by Player One.



TELEVISION

■ *Space Invaders* has had an impact on the small screen in a variety of ways. Not only was a BBC series by celebrity builder Tommy Walsh called *Space Invaders*, there have been numerous references to the game in *Futurama*, *Scrubs*, *Chuck*, *Danger Mouse* and *Black Mirror* among many others.



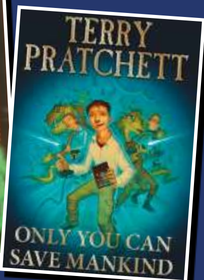
FILM

■ Whether it's *Spaced Invaders* or appearances in sci-fi films such as *Terminator 2: Judgement Day* and *Cherry 2000*, Hollywood hasn't been immune to the classic title. *Space Invaders* has a role in *Pixels* and there's talk of a movie directly based on the series.

LITERATURE

■ It may seem odd that Martin Amis' wrote the guide, *Invasion Of The Space Invaders*, in 1982 but he's not the only author to reference the game. Terry Pratchett's *Only You Can Save Mankind* saw invader-style aliens surrendering and seeking help. Characters in *Discworld* play *Barbarian Invaders*.





ART

■ The urban artist Invader has decorated cities across the world with *Space Invaders* ceramic tile mosaics, some of which were stolen in Paris in 2017. The game has also featured in many exhibitions and gallery spaces, with one single alien invader sprite becoming a design icon.



© KylaBorg

ARCHITECTURE

■ Many home interior design companies are called 'Space Invaders'. But does the game's influence spread to blueprints? Yes, if NL Architects' proposed *Space Invaders* alternative tower block is anything to go by. It was earmarked for South Korea.



- 1990 — *Majestic Twelve: The Space Invaders Part IV* launches
- Versions of the game hit the Game Boy and Mega Drive
- A prize-winning riff on the game offers a £20 jackpot
- 1991 — *Super Space Invaders* offers non-arcade action for home computers
- *Space Invaders* appears in the film *Terminator 2: Judgement Day*
- 1993 — The remake *Space Invaders DX* for arcades is released

OUT OF THIS WORLD

Key games that define the series



SPACE INVADERS

1978, ARCADE

■ The original was entirely black and white and was released in Japan by Taito as a sit-down cocktail table. An upright cabinet was introduced in the west by Midway, reflecting the graphics on to a painted backdrop. Gamers soon became acquainted with the need to blast away five rows of 11 aliens.



SPACE INVADERS '95: ATTACK OF THE LUNAR LOONIES

1995, ARCADE

■ This is a wacky, upbeat, cartoony rendition of *Space Invaders* which allowed you to play as various characters. It has many Earth-based settings and gives you five bosses to battle making it familiar and unique at the same time.

SPACE INVADERS

1980, ATARI 2600

■ Atari bagged the home licence from Taito and created the 2600's must-have title. It only had 36 aliens and three rather than four defence barriers but there were a staggering 112 game variations along with an assortment of shots, difficulty levels and a two-player modes. It sold very well indeed.



SPACE INVADERS

1999, PLAYSTATION

■ This was one of a glut of *Space Invaders* variants at the turn of the millennium but it puts a fresh spin on the design. Modelled in 3D and with a blistering soundtrack, players have to hit four aliens of the same colour in a row to receive different power-ups. There are nods to 1978 in the intro, too.



RETURN OF THE INVADERS

1985, ARCADE

■ The true-colour sequel launched seven years after the original and it unleashed the invaders like never before. The blocks of old were supplemented by patterned waves of aliens that proved increasingly difficult to see off. Deflector invaders had to be shot right in the centre otherwise your fire would bounce back.



SPACE INVADERS EXTREME

2008, NINTENDO DS/PSP

■ Produced to coincide with *Space Invaders'* 30th anniversary, *Space Invaders Extreme* stands as one of the finest remakes in the series' history. Four-hit combos would earn power-ups and it was possible to control when the UFO appeared. A sequel arrived in 2009.

MAJESTIC TWELVE: THE SPACE INVADERS PART IV

1990, ARCADE

■ Also known as *Super Space Invaders '91*, this version was ported to 8-bit and 16-bit computers and consoles. As well as introducing boss invaders, the CG30 cannons could take more than one hit and it was possible to play with a friend.



SPACE INVADERS INFINITY GENE

2009, iOS/ANDROID

■ As another reimagining, Infinity Gene brought *Space Invaders* up to date with charming simplicity, making the most of the touchscreens of mobile devices. It also added the ability to unlock better weapons and rewarded the chain destruction of enemies.

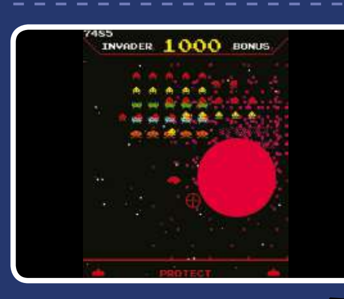




SPACE INVADERS DX

1993, ARCADE

■ A number of games make up this classic: there are colour, monochrome and cellophane versions of the original. The most fun of all is the parody game. This replaced the iconic *Space Invaders* sprites with characters from nine of Taito's games including *Bubble Bobble* and *Arkanoid*.



SPACE INVADERS FRENZY

2017, ARCADE

■ You can't miss Raw Thrills' *Space Invaders Frenzy*. It plays on a nine-foot screen, uses lightgun cannons as controllers and allows you to identify and blast at individual aliens regardless of where they may be.

1995 — Players can enjoy a Virtual Boy *Space Invaders* experience

1999 — *Space Invaders* looks very different on the PlayStation

2003 — *Space Invaders Anniversary* celebrates 25 years of the series

2005 — *Space Invaders Revolution* is launched on the Nintendo DS

The PSP is blessed with the interesting *Space Invaders Evolution*

2006 — The game is chosen to represent Japan by the country's Agency for Cultural Affairs

"IT WAS ONE OF THE FIRST TIMES I HAD SEEN 'ADVANCED GRAPHICS'"

Graeme Devine

"A Sheffield mother is quoted as saying that a Jekyll and Hyde change came over her 14-year-old son when he became hooked on *Space Invaders*," he told MPs. "In London, a 13-year-old vanished from his home for ten days, visiting arcades to play the machines. Also in London, a 17-year-old boy was so desperate for money to feed the machines that he turned to blackmail and theft, demanding £900 from a clergyman with whom he had previously had sexual relations."

For those who were playing *Space Invaders* however, there was nothing better on Earth. It proved inspiring and it created a social scene for young people to hook into. "The game was being enjoyed by all ages due to its simple gameplay," explains Nishikado. "Having said that, the game is not that easy to win. The enemy aliens shoot at the player, which makes the players feel frustrated and nervous. On the other hand, the game gives exhilaration when the player defeats all the enemy aliens and clears a level. A blend of these feelings urged the players to insert another coin for next challenge. I suppose this is the reason for the success of *Space Invaders*."



» [Arcade] If the characters here look familiar it's because they've come from various Taito games. How many can you name?



» [PlayStation] Sony's PlayStation received a number of upgraded arcade classics and *Space Invaders* was no exception.

Scores of players and wannabe developers agreed and there was no getting around the fact that *Space Invaders* was hugely innovative. "It was one of the first times I had seen 'advanced graphics', and the novelty of controlling something on a screen was still really new," says Scottish game designer and programmer Graeme Devine, who went on to create *The 7th Guest* and *The 11th Hour*. "*Space Invaders* was also a watchable game: you'd understand the rules after watching a friend play a few games and you'd want to have a go."

Some of videogaming's key figures over the years were influenced by the game, not only in Japan but in the US, UK, the rest of Europe and beyond. John Romero cites it as a key influence, as does Eugene.

"It was the first fully-formed videogame with real enemies, incredible audio, ever-increasing difficulty and tension with infinite play time as long as you can stay alive," he tells us. "It also created the first videogame addicts and launched the worldwide videogame revolution. By allowing expert players to set record scores limited only by skill, endurance and bladder capacity, *Space Invaders* also became the first esport."

Dona Bailey, who was working as an assembly language programmer for microprocessors in Cadillac engines at a GM-Delco plant in Santa Barbara, California, clearly recalls her first encounter with videogames and the impact it had not just on her but other media. "It was April 1980 and my best friend was very interested in new music," she says. "He played the first Pretenders' album constantly and it had an instrumental song called *Space Invader* on it. I didn't typically like instrumentals but I heard that one so much, I started really liking it."

» Graeme Devine created *The 7th Guest* and *The 11th Hour*.

One night she asked a friend what the song was about and what the title meant. "He got wildly excited and explained it was about this great arcade game called *Space Invaders*," she says. "He said there was a game in a bar close to where we worked, and I should go there with him at lunch some day to check it out. We went, he put in quarters, I got killed before I could figure out what I was supposed to do but I recognised how much the game display looked like the climate control display I programmed on the car back at work, and that's how I fell in love with videogames."

Dona ended up moving to Sunnyvale in May 1980 without a job or much of anything else but she was soon hired at Atari where she devised and worked on *Centipede*. *Space Invaders* had taught her

Space Invaders is included in the Game On exhibition at the Barbican Centre, London

2006

Space Invaders Get Even appears on WiiWare

2008

Taito releases an album called Space Invaders 2008

An art game Invaders! is included at the GH ART exhibition at the Games Convention, Leipzig

Space Invaders launches on iOS

2009

Space Invaders Infinity Gene launches on PS3 and Xbox 360

2010



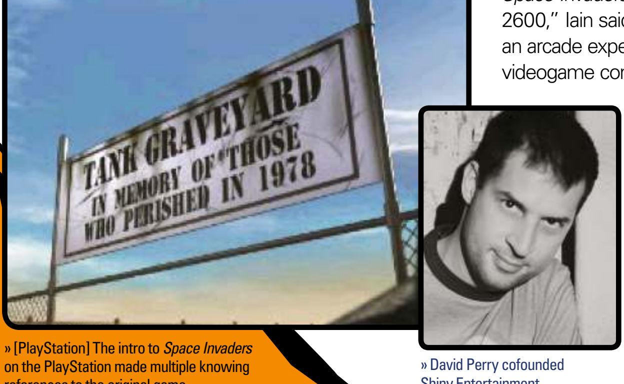
» [PS2] Known as *Space Raiders* in Japan, this was rebranded here as *Space Invaders: Invasion Day*. It's not particularly memorable, either.

» [Wii] Made available as WiiWare, *Space Invaders Get Even* allowed players to control the aliens.

▶ much about gameplay and she thrived. The same was true of other developers.

"Skill, risk and strategy," affirms David Perry of the lessons taught. "The feeling that each time you play, you feel you're getting better; the rewards for taking risks. *Space Invaders* really was ahead of its time."

David draws attention to the fact that players could not hide the whole game. They had to keep popping out into danger or risk being exposed when the barriers were destroyed or killed if the aliens got too close. "The fact that you could attack in any order and use bases for cover allowed for strategy and the two most clever parts were that things sped up, forcing you to rethink your strategy of how to handle the last invaders," he says. "And that was before you saw the glorious strategy disrupter – the spaceship."



» [PlayStation] The intro to *Space Invaders* on the PlayStation made multiple knowing references to the original game.

» David Perry cofounded Shiny Entertainment.

The coin-ops themselves were another disrupter. The emergence of the arcades proved crucial in getting people interested in videogames and it could be argued that gaming and *Space Invaders* may not have become so big had they not been introduced in such a way.

"The immense success of the *Space Invaders* arcade cabinet saw competitive gaming enter new and often unexpected locations for its time, such as shops and restaurants," argues Marie Foulston, curator of the V&A's Videogames: Design/Play/Disrupt Exhibition. Jason Fitzpatrick, curator and chief executive officer of the Centre For Computing History in Cambridge, agrees, "They didn't have a strong barrier to entry – players could put 10p in a machine and play without having to invest in expensive home computers or consoles. The arcades had a feel about them and an atmosphere that people enjoyed. Games were instantly social."

Even so, *Space Invaders* did land in peoples' homes. In 1980, Atari had grabbed an exclusive licence for the game, making it the first arcade game to be ported on to a console. It appeared on the VCS, later known as the 2600, and became a hit, helping to quadruple sales of the machine three years after it was launched.

"Probably the biggest masterstroke was cementing *Space Invaders* into peoples' homes by porting it to the 2600," Iain said. "By bringing a half-decent version of an arcade experience onto the first truly popular home videogame console, it embedded itself into living rooms as well as arcades."

For Atari cofounder Nolan Bushnell, it was another feather in his cap. Already successful in the arcades himself thanks to *Pong*, he had pulled off a coup, even though he was initially sceptical of it. "*Space Invaders* gave me further humility on how to judge a good game," Bushnell tells us. "When I first played it I didn't think much of it but clearly I was massively wrong. It made me realise

"IT HAD THE CORRECT BALANCE BETWEEN RISK AND REWARD"

Nolan Bushnell

that you have to be careful of quick judgments about a game – you need to play it enough to make an accurate judgment. It became one of my favourite games."

Suddenly a Japanese-made game was propelling an American-created console to great heights and *Space Invaders* began to enjoy a second wind. "It was probably the first videogame that had both dynamic and narrative development," Nolan continues. "It had the correct balance between risk and reward."

Just as with the arcade coin-op, the home console version proved encouraging. "It inspired a new generation of people to get into games development and coding," Mark says. "The music and sound effects in *Space Invaders* were influential on the future of games development, showing what a background score which reacts to development within the game can do for the experience. People recognise that these developments had a huge impact and *Space Invaders* is held in high regard as a creative turning point."

It had a big effect on people such as Jenna Seiden who was eight years old when *Space Invaders* launched on the Atari 2600. She eventually became the former vice-president of content development and strategic partnerships at Microsoft Studios, and she is the current head of content acquisition at the gaming distribution platform Ultra. "*Space Invaders* hit all the right notes and it became iconic the moment it landed on the shelf," she says, "It combined the successful shoot and destroy mechanics of previous titles with more intense graphics, and it was an inspiration for gamers like me."

Jenna says the game became an icon because it moved the industry into one of the first examples of storytelling in videogaming. "I did love the double bullets if you held the reset button while you turned the 2600 on, and I liked getting my phalanx-narrowing on, but it was truly the fact that *Space Invaders* spawned the next phase of iconic titles like *Galaga* and *Asteroids* that also resonated with the marketplace."

Space Invaders also impacted on the Japanese development scene. "*Space Invaders*' success stimulated many companies in Japan to embark on game developments." says Nishikado. "The rapid growth of the game industry threw up some masterpieces and developed the consumer game

2014 — A new species of arachnid is named Taito spaceinvaders

2015 — *Space Invaders* appears in the Adam Sandler movie *Pixels*

2017 — The *Space Invaders Frenzy* coin-op dwarfs gamers in the arcades

field from which the Famicom, or NES, was born. When the Famicom became a global hit, it was clear Japanese videogames were taking the world by storm." As for *Space Invaders*, its legacy was set in stone.

The game grossed $2 billion in less than four years and, as Mark argues, "it demonstrated that the emerging entertainment industry was big enough to rival film and music". Big companies were keen to associate themselves with the game. But unlike those who worked in rival industries, Nishikado did not achieve personal fame for a few years, with Taito's policy being to hide the creators.



» Mario Foulston curates the Design/Play/Disrupt exhibition.



» Atari cofounder Nolan Bushnell.

"I don't think that I felt frustrated at the time, but I had some small sad and envious feelings when I encountered the individual names of videogame creators of other manufacturers later on in magazines," Nishikado says. "I feel happy that nowadays disclosing their individual names is quite natural and common sense."

French street artist Invader has peppered cities across the world with depictions of the *Space Invaders* aliens that he creates out of square ceramic tiles. People also often use pseudonyms to take part in *Space Invaders* competitions (although Frank Tetro was more than happy to be named when, aged 14, he hit the headlines for achieving an incredible 110,125 points in the National Space Invaders Superbowl of 1980).

Crucially, the name *Space Invaders* has become ubiquitous and it remains on the tip of people's tongues. "The visual design of space invaders is a universal iconic shorthand for 'videogames'," says Iain. "Even if only by that measure, it's hugely relevant." ✱



» [Xbox 360] Launched for Xbox Live Arcade, *Space Invaders Extreme* saw revamped graphics as well as new visualisers created by Jeff Minter.

MARKING 40 YEARS

How Taito and Square Enix are celebrating four decades of Space Invaders

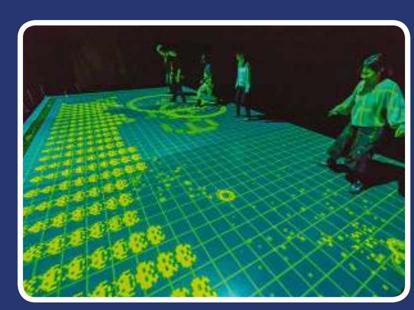
To celebrate the 40th anniversary of *Space Invaders*, Taito's sister company Square Enix planned and developed four attractions. It has brought the game to life like never before, starting with the amazing Play! *Space Invaders* Exhibit in January which took place at in the Roppongi district of Tokyo, Japan.

The highlight has been *Space Invaders Gigamax*, a huge, wide installation that projected the game on to the windows of the building and allowed up to ten players to enjoy the classic title against the backdrop of Tokyo. It proved to be a sight to behold with the invaders making their way towards the city's streets as gamers sought to blast them away.



» *Space Invaders* being projected against a backdrop of the night sky is an no-brainer, really.

Another exhibit created by Square Enix is *Arkinvaders* which projects the game on to the floor and introduces elements of *Arkanoid*. Here, players seek to destroy the aliens by kicking digital circles at them while trying to prevent the weapons falling off the playing field. It's energetic and fun and an artistic spin on age-old gameplay that feels fresh.



» The simple design of *Space Invaders* invites many innovative ideas on how to play the game.

More sweat-inducing is *Noborinvaders* which is projected against a climbing wall. As the players reach climb, invaders appear on the various boulders meaning players have to position themselves close and reach out to touch them, thereby removing the aliens from the playing area and racking up the points.

Finally, there is *Bahamut Disco*, a mind-bending, almost migraine-inducing experience which projects the game on to a 360-degree screen. Four players each pick a colour of alien and use Vive VR controllers to swat them away as they appear, all played to a disco beat. Since it doesn't need a virtual reality device, Square Enix says it offers a new way of playing with VR.



» The art and iconography of the arcade classic lends itself perfectly to a unique art exhibit.

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THE MAKING OF
BATALYX

The mid-Eighties was a period of transition for Jeff Minter, as he toyed with new ways to interact with computers. Enter the mighty Batalyx, with half a dozen minigames and a whole heap of inspired weirdness

Words by Paul Drury



» [C64] Run, goat, run! That Cippy sure can move, spewing out odd bullets as he speeds along.

Jeff Minter leans back in his chair and grins. "I was entering an experimental stage," he says of *Batalyx*. "I'd been doing some fairly conventional games and I wanted to try something different, which led into the whole 'Psychedelia' thing. I was realising there were different things you could do rather than the traditional structure of a game."

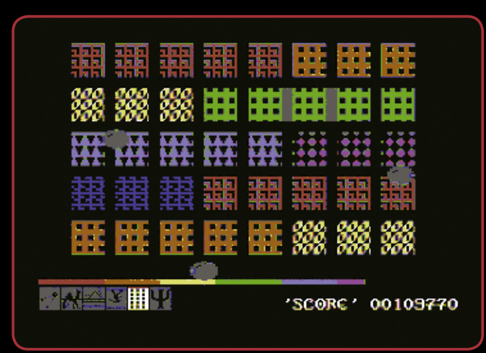
Though we're not sure Jeff's previous work, full of mutant camels and flying sheep, could be termed 'conventional', *Batalyx* was certainly different. A collection of six subgames, players could jump in and out of each at will, tackling the variety of challenges on offer in any order. You could aim to complete all of the minigames or just focus on pushing up your score on one, and rather than being allocated lives, you decided how long your game would last, from a few minutes to a concerted hour-long campaign. It was all about tailoring the experience to the individual.

"You could shape your own game," muses Jeff. "*Batalyx* was about having a bunch of games going on in parallel and the difficulty of all of them was increasing as you played. If you were bad at one minigame, you could choose to play that first while it was not so hard." Is that a metaphor for life? "Oh, I wasn't thinking of it in a philosophical way. It was just an interesting thing to do in a game."

Jeff sketched out the basic concepts for *Batalyx* during a Greek holiday in the summer of 1985 and spent four months coding the game on his return. As usual, he worked alone, but did recruit Mo Warden, a talented young artist who would go on to work at Novagen on such titles as *Mercenary* and *Encounter!*, to create the loading screen. "She'd written to me saying she liked my games and we met up at a computer show," remembers Jeff. "She was a really good artist and did a great job, which is good because I'm shit at art. And no, the hairy character she drew isn't me… it's the Ancipital from Brian Aldiss' *Helliconia* sci-fi trilogy, which we'd both read."

Batalyx was well received by the gaming press, *Zzap!64* awarding it 94% and 'Sizzler' status. "It's one of my games that kind of gets lost," adds Jeff. "Everyone remembers *Revenge Of The Mutant Camels* and *Llamatron*, but *Batalyx* is a nice little game and it's been fun sitting and talking about it. In fact, I think I'll have a game myself."

So without further ado, let Jeff take you through all six subgames.



» [C64] A bemusing overload of audio and visual static combined with much swift lateral thinking. Our head hurts.

HALLUCIN-O-BOMBLETS

A little bit of *Asteroids* DNA, a lot of firepower and a plethora of odd enemies to destroy make Hallucin-O-Bomblets an entertaining and accessible opener. Though dispatching a set number of baddies to progress to the next wave is not difficult in itself, the challenge is to avoid frequent collisions, which reduces your hit count and thus adds to the time needed to achieve the completion icon for this subgame. Indiscriminate blasting does not help, making this a more thoughtful shooter than you might expect. "I like this one," smiles Jeff. "It's fun. The idea came from the bullets in your ship being your reaction mass. You had to fire away from the direction you wanted to move." Isn't that rather counterintuitive? "Yeah, but I like doing that and when you get used to it, it's pretty cool." The array of surreal foes that swarm around your little ship are not your typical alien adversaries, either. From floppy disks to aggressive '*Eyes Of Providence*', each has a special significance for Jeff. "A lot of the sprites in it were inspired by the various people I knew on Compunet, like the stylised cougar head was a homage to this guy called Cougar. The skull and crossbones represented software piracy and the actual rotating ship you control is from *Bomb Jack*. I just like referencing games I've loved." And what about the giant spliffs that try to smoke your ship? "Oh, that was just me," Jeff winks.



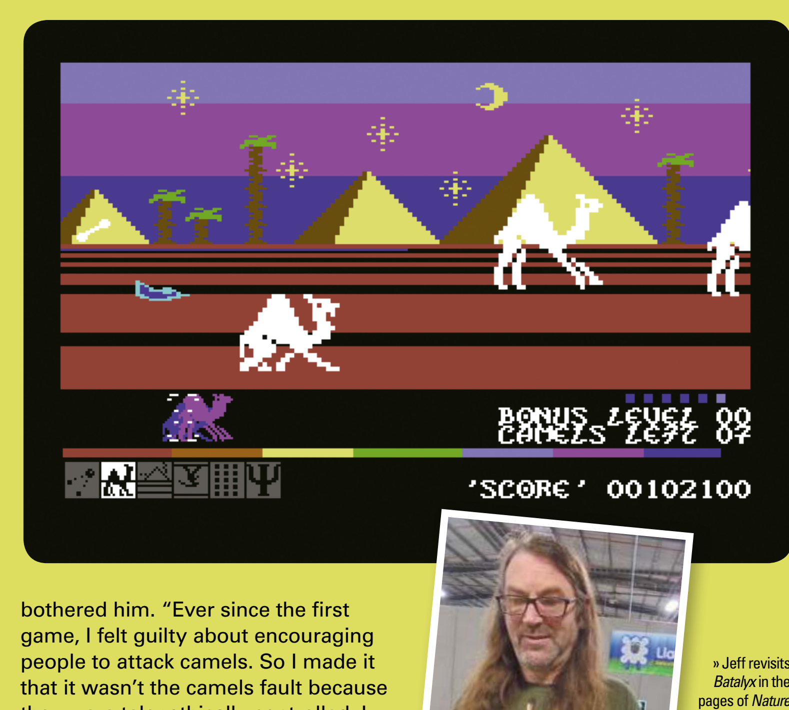




» [C64] The title of each wave scrolls along the bottom of the screen and shows Jeff's love of puns has a long history.

AMC II

Fans of Jeff's early work will immediately recognise this reboot of one of his defining titles, which in turn was his nod to the Atari 2600's *The Empire Strikes Back*, substituting giant camels for AT-AT walkers. "I just wanted to do a nicer version of *Attack Of The Mutant Camels*," he explains. "The original was clunky and by this time I'd done the Atari version, which had lots more colour and a scrolling foreground, so I wanted to do that on the C64. Plus I was able to draw better camels. The original ones had looked like two fat men in a camel suit." The way the camels squat and jump is also nicely handled here and is a testament to how Jeff's coding skills had developed in just two years. "I'd worked out how to do a smooth scroll so yeah, it was technically more accomplished," he agrees. "In fact, I think it's probably the best version of *AMC* there is." Jeff also used this revisiting to correct one other issue from the original that had always bothered him. "Ever since the first game, I felt guilty about encouraging people to attack camels. So I made it that it wasn't the camels fault because they were telepathically controlled. I knew if I was bringing them back, they had to be droids… Dromodroids!"



» Jeff revisits *Batalyx* in the pages of *Nature Of The Beast*, the newsletter he produced for Llamasoft fans.

A BIT OF WHAT YOU FANCY

Five more 8-bit minigame collections

LAZY JONES

1984



■ This collection of 15 minigames (if you count the hassle of getting served at the bar as a game) from SID maestro Dave Whittaker features little tributes to arcade classics like *Space Invaders*, *Frogger* and *Breakout* hidden in various hotel rooms.

FRANKIE GOES TO HOLLYWOOD

1985



■ Denton Designs showed it too could experiment with the subgame concept, offering ten surreal minigames, including the political shooter *Raid Over Merseyside* and the 'Two Tribes Video Meets Boot Hill' of *Talking Heads*, on your journey to the Pleasuredome.

CALIFORNIA GAMES

1987



■ We could have chosen any of the excellent *Winter Games* and *Summer Games* series but this gets the nod due to the diversity of the sports included, from skateboarding to surfing, and the addition of a hacky sack subgame makes it such a period piece, too.

WINTER CAMP

1992



■ We'd argue this late release for the C64 has enough of a variety between stages to merit the 'minigame' mantel, from the side-scrolling 'Ice Patrol' to the shooting gallery style 'Snowball Fight' and the *Donkey Kong*-esque leaping of the final mountain climb.

GAME THEORY

2007



■ This homebrew release for the VIC-20 riffs on *WarioWare*, with tiny challenges lasting just a few seconds, ranging from catching ghosts to popping balloons. A sequel has since followed, proving that the 8-bit minigame collection genre lives on!

THE ACTIVATION OF IRIDIS BASE

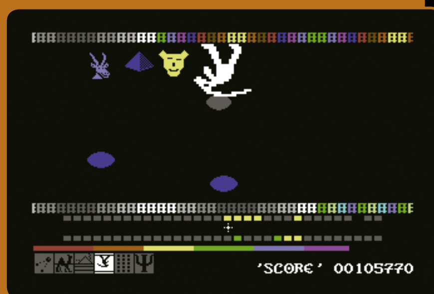
More camel-orientated action as you find yourself atop one of the hairy beasts, heading for the titular base. Though your eyes are drawn to the all-seeing pyramid on the horizon and the colourful spheres swirling around the head of your ride, you should, in fact, be squinting at the small square in the bottom left of the screen. Made up of nine smaller blocks arranged in a 3x3 grid, these correspond to the eight directional points of your joystick plus the fire button as the centre and as the blocks light up, you must move your stick to match the sequence. Imagine the old handheld Simon but with a heap of visual distractions. "This is essentially a rhythm game," muses Jeff. "I'd never played a rhythm action game [back then] but looking back, you can see it. I wanted something where you were sitting on the camel and something about activating the pyramid so I had this idea of sequences you had to follow. There's a lovely 'kerdumpf' noise when you get it right. You could really feel it!" Performing 100 responses correctly to activate the base, signalled by a rainbow effect, can be tough, though you are allowed six mistakes. We like the rhythmic swaying of the camel's neck, which helps get into the swing of things. "I had sat on a camel at this point and I wanted to get that experience across," says Jeff. "Just without the smell."



» [C64] The undulating landscape, the ominous pyramid and the swirling spheres can be very distracting.

CIPPY ON THE RUN

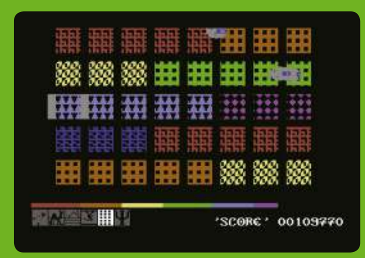
Cippy is, of course, an abbreviation of Ancipital, the goat-man creature who first appeared in the superlative *Sheep in Space* and remains one of Jeff's favourite creations. "I absolutely love him," he beams. "He's such an excellent character and one of these days I really ought to do another Ancipital game. His mechanic is so nice – walking on walls!" The task here is to traverse every section of the grey platforms at the top and bottom of the screens, jumping between them to avoid gaps, danger zones and an assortment of enemies. The way the surfaces change colour as you step on them reminded us of a certain Gottlieb coin-op. "I'm sure it was inspired by *Q*Bert*," agrees Jeff. "Some enemies even rub out what you've painted. I was learning how to do proper gravity jumps, that feeling of inertia, so when he jumps, he floats." We like how the goat's little legs blur when he gets a good sprint on, like a bovine Charlie Chaplin, which looks especially comical during the bonus levels. "I wanted the effect of a stream of Cippies, a rainbow row following him, and you could see the gravity reflected in the nice arc of the goats behind. Yeah, it does look a bit trippy. Were any substances involved? Nah, nothing more than a bit of spliff, really. People think I must have been having all kinds of drugs but all I've ever been into is a little spliff. And maybe a pill or two in later years...."



» [C64] We would love to see Jeff revisit Ancipital on modern consoles. Cippy in VR, perhaps?

SYNCRO II

The most abstract of the subgames and, for most players, the most taxing and downright frustrating. The idea is to immobilise a series of bouncing spheres by 'trapping' them on a square that is rotating at the same speed and in exactly the opposite direction. You can move your cursor to any square to adjust the rotation of all squares of that colour and if you do (eventually) manage to trap one sphere, you'll need to catch the other sharpish before it decides to float off. The eight levels get progressively harder, with invisible blocks and an increasing amount of audio and visual static. "This started out as a Compunet demo," explains Jeff, Compunet being a sort of protointernet for the Commodore 64. "The original had a series of horizontal platforms and various Ancipitals that all ran at different speeds and when they went off the end of one platform they'd appear on the other side," says Jeff. "You had to get one on each platform by synchronising the speed of the platforms to get a goat running in static on each one." You still following this, readers? "It takes some getting used to but I liked the idea," he continues. "It's the closest thing to a puzzle game I've done! I was also interested in using generative audio, so the chords change according to the speed [of the blocks] so you get these tonal drones going on." If John Cale made 8-bit soundtracks, this is what they might sound like.



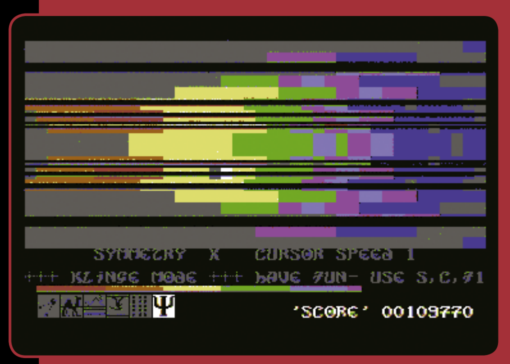
» [C64] The sequel to a Compunet demo, this subgame is the one we find most challenging.

BACK TO BATALYX?

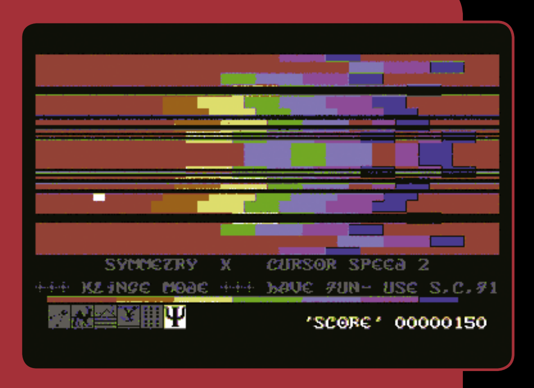
Jeff Minter is unique in the field of videogames. Like a psychedelic unicorn, he's an enigma, and he's been producing distinctive titles for over 35 years, blending familiar motifs and mechanics with new tech and innovations, often revisiting old ideas on different platforms. Has he even considered returning to *Batalyx*, revamping the concept for modern consoles or even VR? "I'm not sure in this form", he muses, "but maybe taking one or two of the bits and turning them into bigger things. All of the games could be taken as sketches for bigger games. We'll see. I definitely don't look back and think, 'That's a bit shit!' I still enjoy playing it. It was me being experimental, hence *Mama Llama* coming after it, which some might say was too experimental!" That's a story for another day, perhaps.

PSYCHEDELIA

If you needed any more evidence that 1985 was Jeff's 'Year of Experimentation', his only other full release that year besides *Batalyx* was Psychedelia, a user-controlled light synth. A fairly full version of it appears here and acts as a groovy kind of pause mode. "I loved Psychedelia so much I wanted to chuck a version in," enthuses Jeff, "so if you get stressed out playing the other games, you can hit that button and chill out for a while. Not everyone might have thought to buy Psychedelia when it came out… I mean, when I first wrote it, I wanted to give it away because I thought the idea was too good to be sold. Too pure to commercialise!" There's no completion icon for this subgame, but it is a lovely way to take a break from the blasting and appreciate that part of Jeff's genius is looking beyond the traditional idea of what constitutes a 'game'. "There are parallels to *I, Robot* and the doodle mode they had in there," he explains. "You could choose to play the game or play the 'ungame'. I really like that idea and this was me saying, 'You can play with these graphics and make nice stuff!' When I first invented, or discovered, Psychedelia, I got the feeling I could really do something with and it went on to become Trip-A-Tron and all the visualisation stuff for the Xbox. It was something I'd never thought of doing with a computer before – a light synthesiser to music. It blew me away."



» [C64] Jeff says he "discovered more than invented" the idea of the light synth and has revisited the concept over the years.





» [C64] Chillax everyone and dig those crazy patterns in this unorthodox take on the pause mode.



Videopac G7000 fact

■ If you've got a Videopac with built-in joysticks that don't work, don't worry – they're not wired to the motherboard. They're actually using connectors located inside the console's casing.

PROCESSOR: 8-BIT INTEL 8048 CPU (1.79MHZ)
RAM: 64 BYTES MAIN RAM, 128 BYTES AUDIO/VIDEO RAM
GRAPHICS: INTEL 8245 WITH MAXIMUM 256X192 RESOLUTION, 16 OBJECTS (FOUR PROGRAMMABLE SPRITES, 12 PREDETERMINED CHARACTERS FROM BIOS), 16 COLOUR PALETTE
AUDIO: MONO NOISE GENERATOR
MEDIA: ROM CARTRIDGE (UP TO 8KB)

Videopac G7000

» MANUFACTURER: Philips **» YEAR:** 1978 **» COST:** £150 (launch), £15+ (today)

Though its keyboard may fool you into thinking that it's a computer, the Philips Videopac G7000 is the direct successor to the Magnavox Odyssey – indeed, in North America it was marketed as the Odyssey 2. As one of the wave of programmable consoles that came in the wake of the *Pong* clones, it was able to achieve a respectable commercial performance, outlasting the likes of the Fairchild Channel F and Bally Astrocade, but falling short of the Intellivision and especially the Atari 2600. It was most popular in Europe and Brazil.

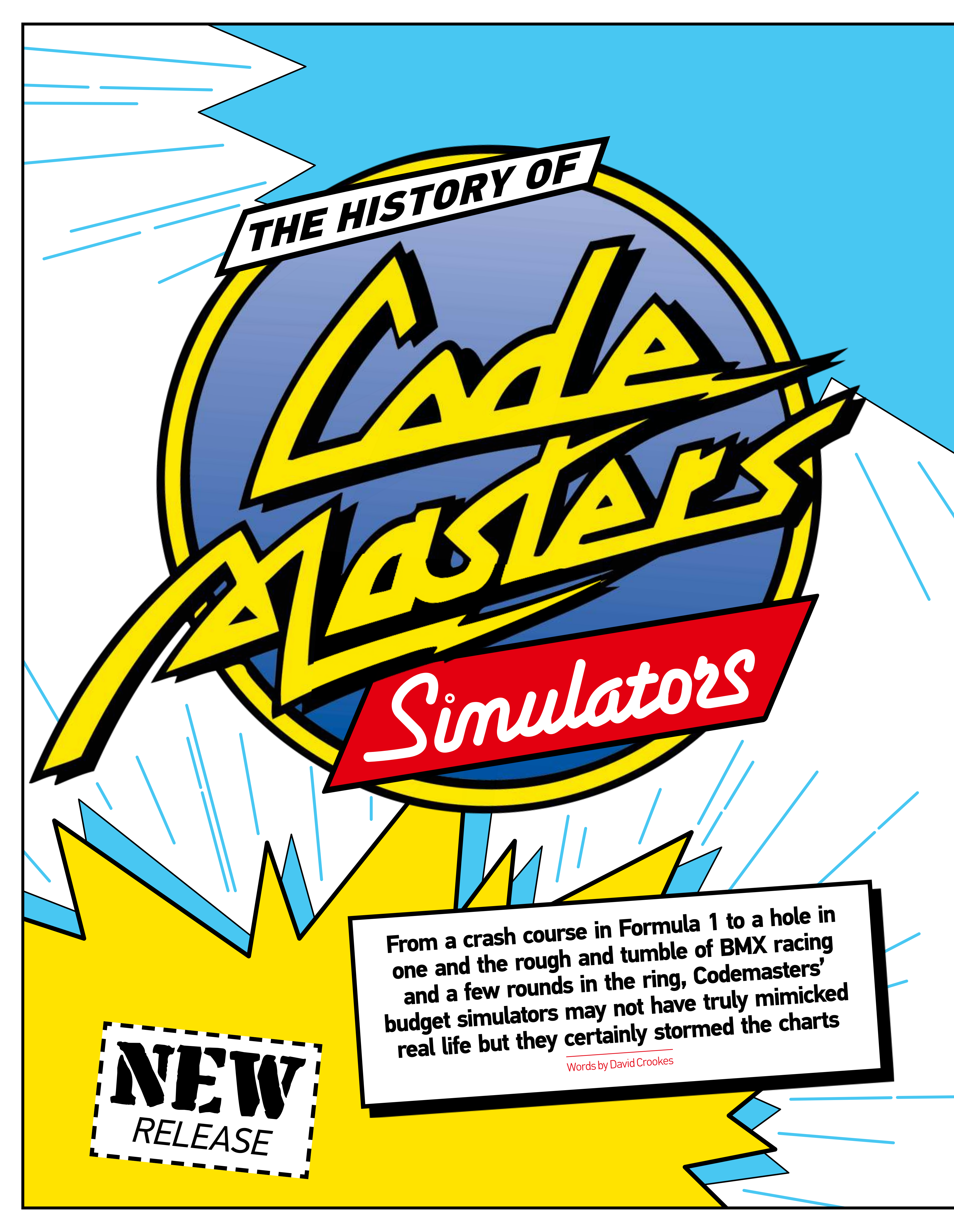
The console's bulky silver body is rather striking and futuristic next to the woodgrain styling of the Videopac G7000's contemporaries. Frustratingly, the cartridge labels are uniformly black with a red number rather than a title, but cartridges have distinctive handles that set them apart from otherwise similar competitors. Some G7000 feature joystick ports while others include built-in joysticks, but the most memorable games for the system combined computer controls and board game setups to create a unique play experience. Unusually, the European version of the console doesn't have a power switch of its own – it must instead be switched on and off at the plug socket.



EDITOR'S CHOICE Munchkin

This is famously the game that Atari sued Philips over, claiming that it was substantially similar to *Pac-Man* – for which Atari held the exclusive conversion rights. The American courts decided in Atari's favour, but not before *Munchkin* had become a bit of a hit with the Philips/Magnavox crowd. The game actually features a good few things which make it more enjoyable than Atari's official port – apart from the shapeshifting maze, the Munchies begin to wander as you come close to completing the maze. It gets tense when you're trying to intercept the last Munchie, while the Munchers try to munch Munchkin.

THE HISTORY OF CodeMasters Simulators



From a crash course in Formula 1 to a hole in one and the rough and tumble of BMX racing and a few rounds in the ring, Codemasters' budget simulators may not have truly mimicked real life but they certainly stormed the charts

Words by David Crookes



It was a little aside buried deep within issue 67 of *Crash* magazine, but anyone who read it could have been forgiven for letting out a small, snide snort. "Rumours have it that MouldCasters are due to release *Advanced Tortoise Simulator* later this year," jibed the fictional writer Lloyd Mangram. But had Codemasters (the obvious butt of this particular joke) actually produced such a title, it's unlikely many gamers would have been surprised.

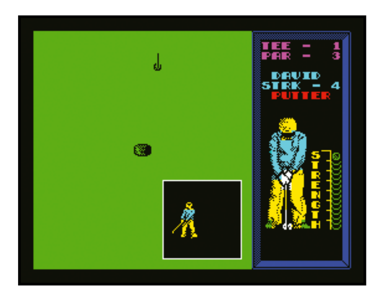
Three years before that reference, Codemasters had released a popular game called *BMX Simulator* and followed it up with plenty more. It was 1986 and the company's cofounders Richard and David Darling were drawing on their experience of working for Mastertronic. "We'd made a game called *BMX Racers* for them and it had sold very well," says David. "So when we set up Codemasters, we thought we'd be able to replicate the success."

Such thinking was based on solid evidence since the Darling brothers' involvement at Mastertronic had been deep. As well as making games for the budget publisher, the pair ended up owning half of the company and they would work with other developers to select the best titles to take to market. "We realised that a lot of programmers were coming to us with games about space, but that the ones which did really well were based on existing themes," David adds. "We also noticed that many people liked their games to be realistic."

With that in mind, Richard had got down to work on *BMX Simulator*, seeking to capitalise on the huge interest in BMX bikes at the time. He created it in the Codies' small office based at the Beaumont Business Centre in Banbury, infusing the game with as much realism as possible under the constraints of the Commodore 64 by working hard on the physics.

"The whole idea was to avoid making an arcade-style racer because there were already a good number of them around," David continues. "It also meant we could justifiably make use of the word 'simulator' which was a term people were familiar with thanks to the professional flight simulators being used in the aviation industry." When *BMX Simulator* subsequently sold well for Codemasters, the Darlings were convinced they were on to a winner.

Philip and Andrew Oliver were quick to spot the potential, too. Having already produced a couple of games for Codemasters – *Super Robin Hood* and *Ghost Hunters* – the twins were looking for their next project. As soon as they set eyes on *BMX Simulator*, they knew what it should be. "We wanted



» [Amstrad CPC] *Pro Golf Simulator* was a comprehensive little golf game that enthusiasts were sure to enjoy .

» [Amstrad CPC] *BMX Simulator* was the first of many top-down racing games from Codemasters.

» David Darling cofounded Codemasters with his brother Richard.



THE MAKING OF

BMX SIMULATOR

David Darling on the simulator that started Codemasters' obsession

With a keen interest in motorsports and biking, Richard and David Darling decided to replicate the success they'd had with *BMX Racers* at Mastertronic by producing a similarly themed game for their new company, Codemasters. From the start, however, they decided to go further than they had done before, bringing physics into the equation and making a game that sought to mimic real life as best they could on a Commodore 64.



» [C64] BMX Simulator made its debut on the Commodore 64, with other systems following.

"We'd been really interested in physics at school and we liked the idea of simulating real-life in videogames," says David. As such, Richard began experimenting with bikes viewed from the top down, looking at how the environment could affect how they handled. "He began to think about gravity and the effects on the bikes as they went over bumps," David adds. "He considered the bumps and the banks and how the physics would speed the bikes and slow them down."

What emerged was an all-time classic, with Richard devising seven different BMX courses that became progressively harder. It could be played competitively with a friend and there were action replays which was great to identify a winner of close finishes.

"These were the kinds of innovative features that we thought would make the game stand out," David says. "Right from the start, we were trying to make titles that could be full-price games at budget prices."

It helped that it was easy to get to grips with. Players would simply accelerate and push left or right to career around the tracks but while the game felt straightforward enough, the obstacles – from the jumps to the hay bales and banking – made for tricky races. "It was important that players felt challenged and so I would help come up with ideas for the game and test it to ensure it worked well," says David.

Richard Darling upped the ante with *BMX Simulator 2* in 1989. As well as adding a choice of tyre width and chainwheel size which could affect the turning and acceleration, there were ten new courses, dirt biking and quarry racing options as well the ability to play with three other pals. "We were allowing two players on the joysticks and another two on the keys and it worked really well," says David. The game didn't top the sales of *BMX Simulator*, which shifted 500,000 units, but it certainly showed Codemasters' ambition.

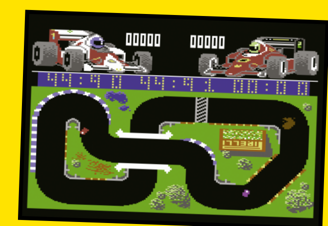


THE MAKING OF

GRAND PRIX SIMULATOR

The story of the high-speed racing simulator, as told by Phillip Oliver

"Within a minute of seeing *BMX Simulator*, it was obvious how we'd create *Grand Prix Simulator*," says Philip Oliver, who developed the game alongside brother, Andrew. "The game showed us a way to capture the spirit of a sport with good gameplay on very limited technology. So we adopted the same top-down view and took the same game design, simply changing the bikes to cars." The effect? Another bestseller.



» [C64] The blocky cars were annoying, but otherwise *Grand Prix Simulator* was great fun.

The Olivers developed the game on an Amstrad CPC, drafting in James Wilson to help with the graphics and getting Jon Paul Edridge to work on the audio. "We started by drawing courses created from a small number of repeated sprites and we produced a top-down car sprite with rotated versions," Philip explains of the initial process.

This was carried out using Panda Sprites, a toolset they had created themselves and sold to Interceptor Software in their pre-Codemasters days. But while it proved effective, the twins had to bear in mind the low resolution of the game. "Players needed to be told it was a car," Philip says of the tiny motors which ended up looking like small bricks. And yet it still made for a fun title.

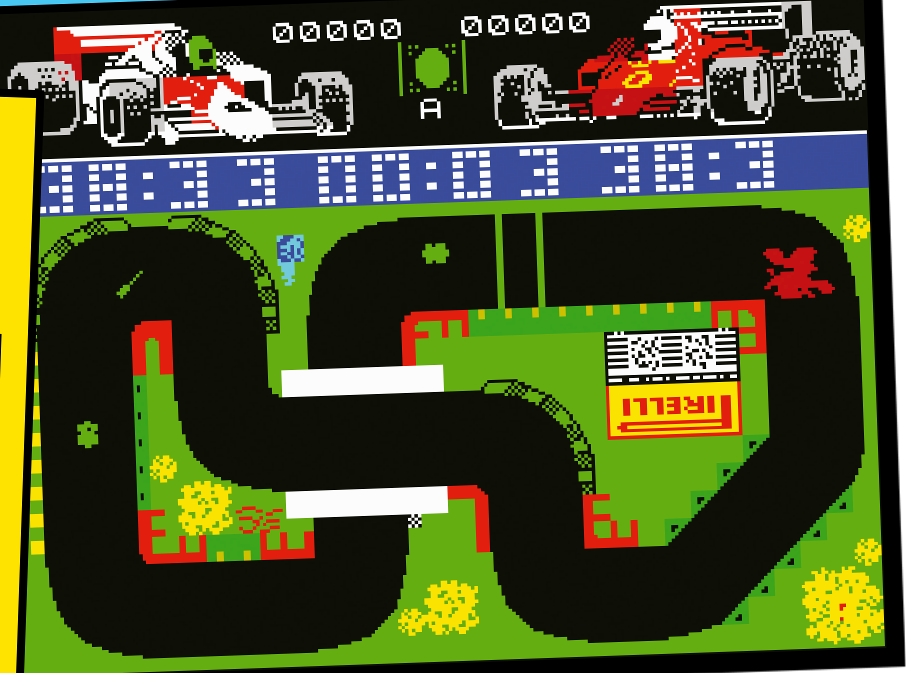
Not that it didn't have some problems. "We based our collision on reading the screen pixel colours so if the car was on black then it was the road, but if it was on green then you were on the grass and therefore we had to add higher friction," Andrew explains. "It became a little trickier when we had to deal with the bridges which we were keen to feature. Sadly this approach led to a bug where you could crash the AI cars and leave them very confused."

Even so, the Olivers packed enough goodies in the game to more than justify the £1.99 price tag. Aside from allowing one or two players to speedily race around for three laps within a set time limit in the hope of avoiding last place, there were 14 tracks, numerous obstacles and even some digitised speech counting you down at the start of the race.

It took the Olivers about two months to write – *Super Robin Hood* was developed in half the time – but it was completed over December 1986 and January 1987. "Our sixth form friends had returned from university and since it was Christmas we were expected to spend time visiting relatives so that slowed us down," Philip says. "*Super Robin Hood* was also number one in the charts and we lost a few days to meetings at Codemasters, interviews with magazines and newspapers, time spent taking royalty cheques to the bank."

For all that, however, the Olivers were still disappointed, particularly with the graphics and the control of the cars. "Most disappointing was how long it took for someone to convert it from the Amstrad to the Spectrum – six months [the Spectrum version was endorsed by Johnny Dumfries, teammate of Ayrton Senna]," says Philip. "But the controversy from Activision claiming we had copied Super Sprint helped: the press coverage boosted the sales."





» [ZX Spectrum] It took six months for *Grand Prix Simulator* to be converted to the Spectrum.

to do a top-down car racing game along the same lines," Philip says. "We thought it would work perfectly."

As huge, huge motorsport fans, the Darlings instantly agreed. "We were in the habit of choosing developers based on their pedigree and ability to make high-quality games and the Olivers fit the bill," David says. Yet the aspiring Olivers had an ulterior motive for wanting to produce what became *Grand Prix Simulator*. "Fast cars were very aspirational for us as teenage boys and when we saw the Darlings' Toyota MR2 and Celica we thought we could buy cars like those if we wrote a game that sold really well," Philip says.

In their bid to ensure it would be a hit, the twins vowed to match the quality they'd seen with Richard's *BMX Simulator* on the Commodore 64 in October 1986. "That game had set the benchmark in terms of gameplay and it showed us exactly how we could create a car racing game," Philip continues. "We simply adopted the same game design, changing bikes to cars." The rest seemed to slot in to place.

Opting for a top-down view, however, saw the game lambasted by Activision, amid accusations that it was too similar to its conversion of *Super Sprint*. Both the Olivers and Codemasters refuted the charge and refused to withdraw it from sale, with the subsequent fuss and press coverage soon having a positive effect. *Grand Prix Simulator* sold more than 250,000 copies on the Commodore 64, ZX Spectrum, Amstrad CPC and Atari 8-bit computers. "The *Simulator* series of games was born," says Philip.

Indeed it was. "We realised that it made sense to have a sub-brand or badge and 'simulator' seemed to fit," David explains. "It gave a flavour of the direction we were taking with the games and it also showed that we were trying to be different. So many companies were making games from scratch, having one hit and then going on to produce a completely new game. But we felt that we could build some good momentum."

BMX Simulator and *Grand Prix Simulator* sold for a pocket-friendly £1.99 and Codemasters believed gamers were more likely to pick up further titles if they could see signs of consistency. It became crucial to pick the right kind of sport or activity to maximise sales, although this was often done for personal as well as rational reasons.

"It was often a case of, 'We've just been skiing with the Olivers so we'll do a skiing game,'" says David, "or we'd see a trend such as the popularity of jet biking and consider it a decent theme." Past experience was also considered: *ATV Simulator* and *Professional BMX Simulator* sought to build on the huge appetite for motorsports.

"The trick was to pick something aspirational where players would say,



» [ZX Spectrum] *ATV Simulator* was surprisingly good fun, with an enjoyable multiplayer mode.

"We wanted people to recognise Codemasters first and the individual titles next"

David Darling

'I'd love to play that' because they wanted to do it in real life," says Philip. "It was important that they had an idea of what the game would be and it was our job as developers to give them the best possible experience in that theme given the constraints of the computers."

Even so, one of the criticisms levelled at Codemasters' simulators was that the claims on the box did not always match the game. Were *Fruit Machine Simulator, Pro Skateboard Simulator* and *Advanced Pinball Simulator* really "just like the real thing" as the back of the games' packaging claimed? And, indeed, was *International Rugby Simulator* "absolutely brilliant" as David Darling was quoted about his company's own game?

"Producing more accurate simulations was beyond the capability of those 8-bit computers and beyond our ability to code them," admits Andrew. "But in game development, everything's a trade-off and we focused more on fun than simulation, but at budget prices, which is all that was expected. Codemasters had great boxes that looked exciting, but were also informative. Within seconds of flipping a box over in the shop you knew roughly what you were getting."

This was definitely the case. All of Codemasters' games carried a similar eye-catching look which made them instantly recognisable to anyone scanning the shelves. The hope was that they had bought a previous title from the Codies and that this would make them more willing to take another to the till.

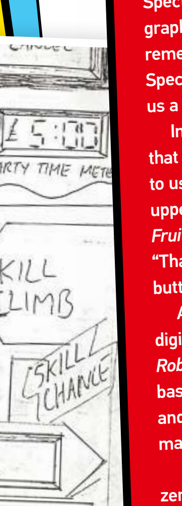
"It was important that the packaging would carry through with all of our games and so we would have the familiar yellow splashes and numbers on the spines," David says. "We wanted people to recognise Codemasters first and the individual titles next." For this strategy to work, however, the quality of the games had to be reasonably high.

"We tried really hard to make all of our games look and play well," David continues, "and one of the ways we did that was to give our developers space. We'd leave them to make the actual




» The Oliver twins made their names with the *Dizzy* series, but also worked on a number of sims.





» The Oliver twins are fantastic at archiving their work. Here's *Fruit Machine Simulator.*

THE MAKING OF
FRUIT MACHINE SIMULATOR

Phillip and Andrew Oliver tell us about the title that raised eyebrows

Designed by James Wilson and written by Mark Baldock, *Fruit Machine Simulator* was a controversial game – but not for the reasons you'd imagine. Far from worrying the game could encourage gambling, most objectors were concerned the game didn't actually let you win anything and that, they said, rendered it all rather pointless.

But did it? The game certainly had many features familiar to anyone who played a fruit machine, from cash box to nudge to feature holds. It was also good fun for up to four players since it encouraged you to beat your friends' winnings and it felt quite competitive as a result.

Despite that, its origins remained odd since artist James Wilson wrote the whole game as a lengthy description. Since James wasn't a programmer, this was passed to Mark to implement and he did so, before seeing the game sell in huge numbers. Sadly, James died in an accident and so he didn't benefit from the royalties. With the money then earmarked for his family, the Olivers stepped in and agreed to create the Amstrad version to keep the cash flowing. Once again, it sold loads.

"By the time we came to write this, we had such a slick pipeline for writing games that we felt it was easier to just look at the Spectrum game that had just been produced, reproduce all the graphics elements and tie them together with our own code," remembers Andrew Oliver. "We didn't even look at the original Spectrum code, but it was clearly the right decision as it only took us a week to complete."

In order to do this, the graphics needed to be reformatted given that the Spectrum game's resolution was 256x192. But in deciding to use the Amstrad CPC's Mode 0 (giving a resolution of 160x200), it upped the number of colours they could use to 16. "We felt making *Fruit Machine Simulator* colourful was more important," Philip says. "That, however, gave us quite a few problems with the text on the buttons because some of our fonts were four-pixels wide."

As was becoming their trademark, the Olivers also used digitised speech (they'd amazed players with the technique in *Super Robin Hood, Ghost Hunters* and *Grand Prix Simulator*). "It was very basic and it took a lot of memory but it added an additional feature and extra quality," says Andrew. "We added this after finishing the main game, making use of the available spare memory."

So what did they make of the fact *Amstrad Action* gave the game zero per cent? "It was so absurd," Philip says. "For some reason they could accept that, regardless of no physical money being involved, it was still fun to play with virtual currency. Interestingly enough, whilst debugging the game Andrew and I did use real money, taking it in turns to be the player and the banker."

» [ZX Spectrum] You didn't win real money, but *Fruit Machine Simulator* still proved popular.

THE MAKING OF

SAS COMBAT SIMULATOR

Optimus Software's Jason Falcus talks us through his murder sim

Although the very first Codemasters simulator was created by cofounders Richard and David Darling, numerous other developers worked on subsequent titles. They included Optimus Software which was set up by Darren and Jason Falcus in 1988.



» [Amstrad CPC] Some Codemasters games used the term 'simulator more loosely than others.

"We met David at Codemasters that summer and agreed a deal to make some games for them," recalls Jason. "We went away and brainstormed some ideas, and *SAS Combat Simulator* was the first idea we came up with. We loved games like *Commandos*, *Ikari Warriors* and the *Rambo* game at the time, and loved the idea of making a similar top-down arcade shooter with a military theme."

With the go-ahead given, Jason began to code the game and develop the art while his brother helped with the design. They'd decided early on to lend a twist to the games that inspired them by allowing the game to scroll both vertically and horizontally at different sections of the levels. "We also chose to add a side-scrolling combat section inspired by games like *Green Beret* every other level," Jason adds.



» Jason Falcus worked on *SAS Combat Simulator*.

To produce the game, Codemasters gave Optimus a crossplatform development kit made by a UK company called PDS, which consisted of a PC connected to the Amstrad CPC and Spectrum. "This allowed us to very quickly compile the game for both platforms and it was a huge advance compared to the development software we had previously used." Yet developing simultaneously was still a challenge because each machine had different display hardware and limitations.

"I had to create a linear 'buffer' on which the game was projected, and then copy this buffer to the Amstrad and Spectrum displays in different ways," says Jason. "I also had to allow for two different sets of graphics – the Spectrum only allowed two colours in any 8x8 pixel character square, whereas the Amstrad allowed individual pixels to be different colours. This was particularly challenging when designing a scrolling game on the Spectrum."

Added to that was the realisation that Jason's art skills weren't up to the standard needed. "We placed an ad in the local computer shop and were soon approached by a local guy called Adrian Ludley who was an experienced games artist looking to move back to the North East. He joined the team and went on to do all of the art for the game." Once the game was complete, however, it was ported to the Commodore 64, Amiga and Atari ST. "It allowed us to start employing staff and build our first development studio," Jason continues.



Today, Jason has fond memories of the simulator games, especially because it didn't really affect the way the developers approached their titles. "It was really a tag and it was a great decision because I'm sure it helped contribute to the game going to number one in the UK charts the week it was released," he says.



» [Amiga] Most of Codemasters' simulator games are found on the 8-bit systems, but there are exceptions.

▶ game and trust that they'd do it well. Only once they'd made it would we discuss ways to improve a title. We certainly didn't dictate how it should be done from the beginning because we didn't want to affect creativity."

The Olivers back up that claim, saying the only real constraints on the simulators were from the sports or activities themselves. "There were no rules for the creation of the games, but there was an understanding that they should be multiplayer which was rare in those days," affirms Philip. This came from David and Richard's competitive streak and their penchant for wanting to win at anything they turned their hands to, especially videogames. Ultimately, though, the general theme of the game was all that really mattered.

"It was great to have the reference of the imagery and rules of a sport as inspiration but we didn't pay too much attention to the real rules – it just set the theme for us to then design a game within the capabilities of the computer," Andrew says. "You have to remember, in the early days, game design was limited to what the computer could do. That's why it was the programmers that also did the game design. They often did the graphics too – we often did!"

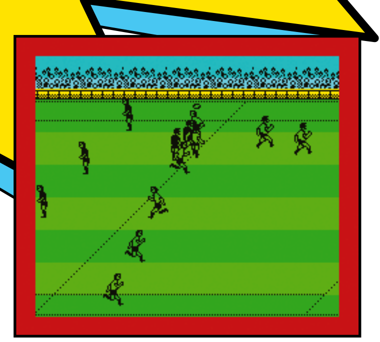


» [C64] Every developer has at least one football title in its library and Codemasters is no exception. It has several.

It meant there was room for experimentation and this was actively encouraged by Codemasters. With *Professional Ski Simulator*, for example, the Olivers attempted pseudo-3D isometric visuals by having the player view the action from a 45-degree angle. It also tried to put gamers in the shoes of the skier so that pushing left or right on the joystick would move the stickman figure to its left or right rather than yours. With two-player action, the ability to compete against the computer and a screen split into three, a good amount of thought had gone into the title. It even boasted digitised speech. Not bad for a game made in a month by devs who admit they were never looking for challenges.

"*Pro Ski Simulator* required us to master the isometric design, code and graphics, if we were to do justice to the game," says Philip. "We loved *Marble Madness* in the arcades and thought it showed how the side of a mountain could be achieved, and how traversing it would be fun. Sadly on the Spectrum and Amstrad, achieving the speed and fluidity we wanted from a scrolling screen was beyond the capability of the computers, so we were always disappointed with the results. It's a shame but 8-bit, pixel mapped computers weren't really suitable for scrolling games."

Still, they tried. With *4 Soccer Simulators*, Codemasters bowed to the world's biggest sport and came up with a varied compilation based of the beautiful game that included vertically-scrolling version of 11-a-side, indoor soccer, soccer skills and street soccer. The fact that none of these are enthusiastically spoken of today speaks



» [ZX Spectrum] *International Rugby Simulator* brought a game of side-on rugger to the 8-bits and the Atari ST.

volumes (they were no *Emlyn Hughes*, *Match Day II* or *Sensible Soccer*) but they nevertheless ended up on the main 8-bit computers as well as the PC and NES and sold very well.

Meanwhile, *Advanced Pinball Simulator* didn't just attempt to translate the pinging of balls around a board to computers, it tried to shoehorn a plot in amid the trapdoors, rollover lanes and mega-bumpers.

In some ways such frivolous additions would mask underlying faults, in this case the disappointing ball physics, but in the most part those were due to the constraints of the machines. "Our initial intention was to create a series of pinball games all based on the same code, adding themes and new mechanics over time just as arcades did with real pinball machines," says Andrew. "But towards the end of developing the game, we ended up putting a lot of 'bodge code' in just to cover up the poor ball movement so that it was good enough to ship."

For David, the odd blip here and there was not such a big deal as long as developers aimed high in the first place. "There's always a risk that if a game isn't good, then you don't sell very many and that, ultimately, limits the damage," he says. "We were at the point where we were making so many simulators that people were only remembering the big ones anyway."

"We were making so many sims that people were only remembering the big ones"
David Darling

To that end, it seemed to matter little that *Fruit Machine Simulator* was handed a big fat zero in *Amstrad Action* despite being an enjoyable game ("maybe it didn't fit as well as *Grand Prix* and *BMX* but it was still something we could realistically simulate," David says). Similarly, the Codies largely got away with grabbing *By Fair Means Or Foul* from Superior Software and re-releasing it as *Pro Boxing Simulator* by simply changing the packaging and lending it a new title screen. David does not remember much about this but it caused a minor furore at the time, albeit one that blew over very quickly.

The big issue was that Codemasters labelled the game as a "new release" and it meant that anyone who had bought it at full price from Superior felt cheated. Richard Darling went on to tell *Crash* magazine that it was a new release (for Codemasters, at least) "but it was really unfortunate and a mistake not to indicate that the game had been originally published with a different name". As a consequence, the "new release" label was amended to "previously known as *By Fair Means Or Foul*". Codemasters also offered to refund any gamers who already had the original game.

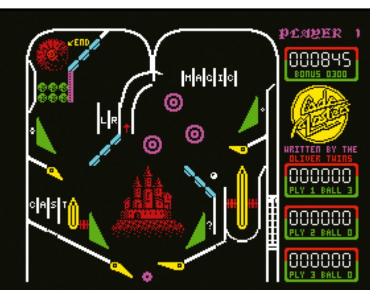
The upshot was that the *Simulator* branding had been down but it was certainly not out. What had received a bloody nose, however, was an attempt to create another price point for its simulators that was mid-way between budget and full-price. Promoted by Codies' marketing chief Bruce Everiss as the Codemasters Plus range, it came with the bonus of two cassettes and two modes: ordinary and expert.

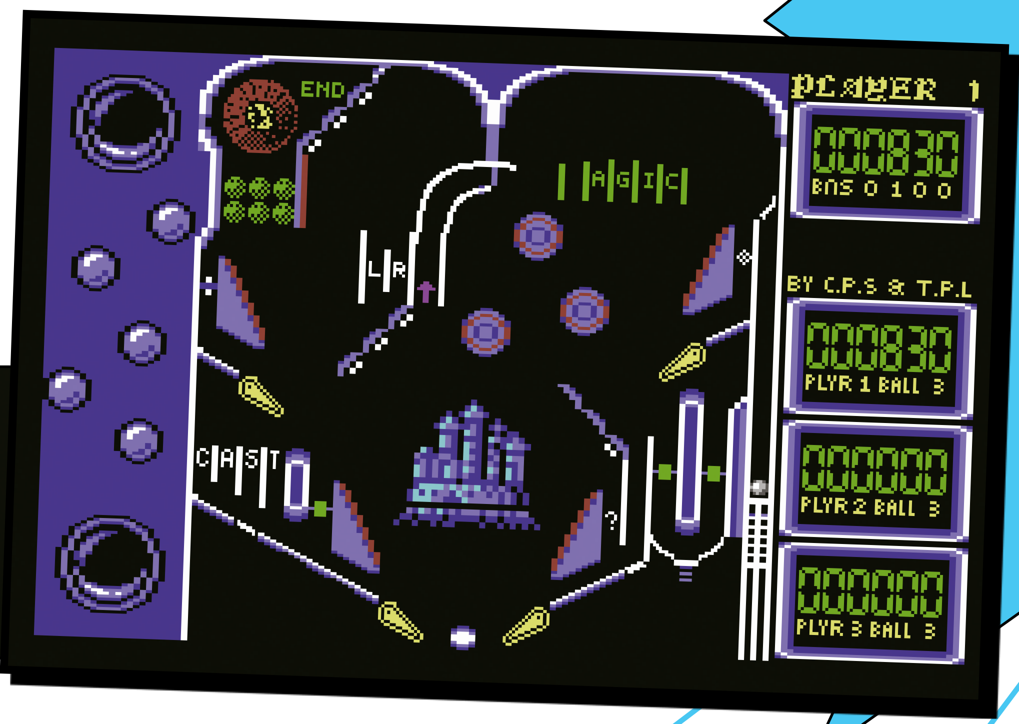
The first game in this range was *Jet Bike Simulator* followed by *Pro BMX Simulator*, but the higher price point placed a little extra pressure on the development teams. "The extra price meant we had to put more in and so we'd give ourselves six to eight weeks on these games," says Philip. "In reality it meant creating more courses, as there was only so much we could do within the game itself."

Codemasters had felt that it would be too much to go straight for the £9.99 price yet it yearned to show that it could produce more than budget games. ▶



» David Darling remains a huge motorsport fan and he often competes in karting events even today.





» [ZX Spectrum] *Advanced Pinball Simulator* was created by the Olivers with Christian Shrigley coding the C64 port (right).

CHART BUSTERS

Three Codemasters simulators reached number one in the official Gallup charts



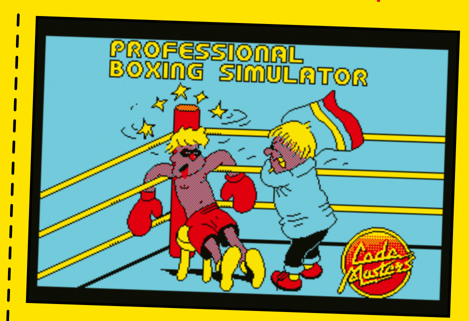
4 SOCCER SIMULATORS

■ Published on the Codemasters Gold label for £8.99 in 1988, this compilation of four football games – *11-a-Side Soccer, Indoor Soccer, Soccer Skills* and *Street Soccer* – was developed by Supersonic Software and it was later re-released for £2.99.

BMX SIMULATOR

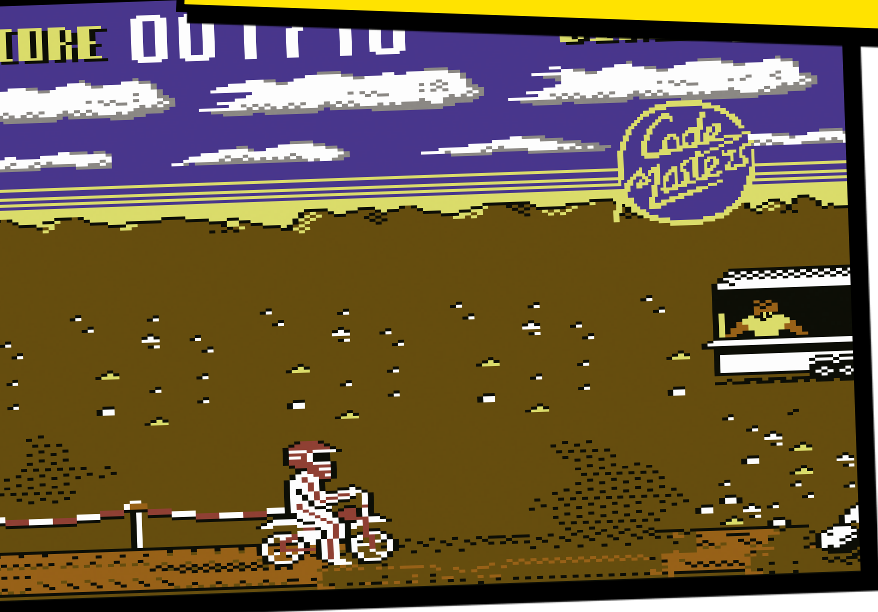
■ According to the blurb on the inlay of *BMX Simulator 2*, the original title spent more than 100 weeks in the British computer software charts and it sold more than half a million copies making it, by far, the most successful of all of the Codies' simulations.





PRO BOXING SIMULATOR

■ Even though it was a re-release of Superior Software's *By Fair Means or Foul, Pro Boxing Simulator* seemed to floor the opposition in 1989 by selling incredibly well. It may have had something to do with the fact 'new release' was plastered on the box, however.



» [C64] Many of the sims would include reference to Codemasters, such as *Moto X Simulator*, and this helped to cement the overall brand.



» [Amiga] Bold and colourful, *Pro Powerboat Simulator* was another top-down sim but we reckon in real-life the racers don't have bombs.

"The mandate was that they had to be bigger and better than the usual games so that they would deserve the higher price," Philip continues. "The good news is that we were all on royalties so we'd get more money per game sold too."

According to David, "the price reflected the extra costs of production and development to some extent" (*Jet Bike Simulator* also came with a sticker and a free colour poster). "But we didn't achieve anywhere near the volume of our £1.99 and later £2.99 games." Cue a return to simulators at the lower price, among them *Super Tank Simulator* which was developed by Optimus Software, headed up in Middlesbrough by Jason Falcus.

This game had players rumbling along in a tank, avoiding mines while shooting turrets and other vehicles. It also included a shooting range section for variety. "We were inspired by classic old games from Atari consoles, I think, in which tanks fired bullets which bounced off walls," says Jason. "We wanted to do something inspired by that fun mechanic but with a more detailed, arcade-like graphic style."

Advanced Pinball Simulator, meanwhile, was made even more surreal with the addition of lightgun support when it appeared on the flip-side of the *Defender Light Gun* compilation. The Olivers also built on *Grand Prix Simulator* with a sequel. "The original had various issues we wanted to fix so we got on and did it," Philip remembers.

> "We were all on royalties so we would get more money per game sold"
> Phillip Oliver

Revisiting old themes with the simulators made commercial sense. "The games had a short shelf life even if they were very good, so a year after release you wouldn't be able to buy a copy," Philip explains. "The sequels were also great from a creative point of view because you were always left with regrets that a game could have been better. A follow-up was a good way to improve a game and get it back in the shops, selling to players that had bought the first game, but also selling to new players."

One of the sequels was *Fruit Machine Simulator 2*, proving that – despite the scorn the original received – it had performed well for the company. There was even room for *Arcade Flight Simulator*, even though that appeared to go against David's original ethos – an arcade game and a simulator in one? It was, however, a way of distinguishing it from the likes of *Microsoft Flight Simulator* given that it was not, in any way, shape or form, as comprehensive as its more expensive rival. Instead it had players in various planes pitched in battles from the two world wars (and a proposed third conflict).

By this point (1989 to 1990), the simulators had been released as a steady stream and there was a feeling that the Codies had pretty much exhausted the possibilities (*Your Sinclair* had already lampooned the idea by popping *Advanced Lawnmower Simulator* on the covertape of issue 45). That said, some decent, if above-average, games were still being launched such as yet another motorsport title in *Moto X Simulator*. Players could also enjoy *Pro Golf Simulator* which had a cool course editor and *Pro Tennis Simulator* which had a range of court surfaces, a simple interface and decent animation. Their instant playability pulled in gamers faster than a serve by Samuel Groth.

What's more, *Pro Tennis Simulator* had a sense of realism that, say, *Pro Powerboat Simulator* did not. As a vertically scrolling racing game for up to two players, it had you picking up fuel and seeing off your opponents with



» [Amstrad CPC] *Super Tank Simulator* had loads of enemy fire to contend with – you could even deflect shots off the walls.

some well-dropped mines (something we'd hazard a guess doesn't happen in real life). But reality was also biting for the team at Codemasters. Not only was competition nibbling but it needed to move away from budget games in order to survive in the long term.

"By this time, we were having problems with other companies copying our idea and releasing games with 'simulator' in the title and that was confusing for gamers." says David. Zeppelin was one of the "offenders" with games such as *Rally Simulator, Spaghetti Western Simulator, Go-Kart Simulator* and *Professional Go-Kart Simulator,* but there was also *Turbo Boat Simulator* by Silverbird Software, *Future Bike Simulator* by Hi-Tech Software and, perhaps most bizarrely but eye catching, Top Ten Software's *Werewolf Simulator.*

Codemasters sought to get some extra mileage out of its own offerings with the *Quattro* compilations. *Quattro Sports* contained *Soccer Simulator, Pro Tennis Simulator* and *BMX Simulator, Quattro Power Machines* included *Pro Powerboat Simulator, Quattro Arcade* popped *Fruit Machine Simulator, Grand Prix Simulator* and *Advanced Pinball Simulator* either side of the tape; *Quattro Skills* consisted of *Professional Skateboard Simulator, Pro Tennis Simulator, International Rugby Simulator* and *11-A-Side Soccer* and on it went.

"We also ported our simulators on the 16-bit machines, the Amiga and Atari ST and they worked really well for us for a few years until the industry moved on and we got into Nintendo games," David says. "On the consoles the cartridges were expensive so we had to move to full-price and that continued with the move to PlayStation. Yet the core of the simulators stayed with us. We might have stopped using the simulator brand but we didn't stop the desire to make racing games realistic and that's still in the DNA of Codemasters with the *TOCA, DiRT* and *Formula 1* games."

Philip agrees. "The *Simulator* series – and the *Dizzy* games, of course – were the backbone of Codemasters," he says. "Without these, we doubt the company would have survived." Andrew says the simulators were able to evolve as the technology improved and developers became au fait with earlier titles.

"We enjoyed making them and we are happy they were fondly received and remembered well," he says. "It was interesting to see other developers attempted creating 'simulators', although we think having *Goat Simulator* was taking the concept a little too far." Not as far as an *Advanced Tortoise Simulator* but we get what he means. *



» The idea for *Professional Ski Simulator* followed a joint holiday taken by the Darlings and the Olivers.

THE MAKING OF

JET BIKE SIMULATOR

How the Oliver twins transported watery mopeds to your home

"Codemasters had got a good reputation for great games, but they were always budget, even though the quality was there to justify higher price points," says Philip Oliver. "It also meant our games were on a different shelf in the shops so the decision was made to produce a go-between." Cue the Codemasters Plus range costing gamers £4.99.



» [Amstrad CPC] Jetting about at the Cotswold water park led to the creation of *Jet Bike Simulator.*

Jet Bike Simulator, along with *Pro BMX Simulator*, was the first game to be released on this new label and it had been inspired by one of Philip and Andrew Oliver's friends. "His parents were rich and they had bought two jet skis so we'd spend many wonderful afternoons on the Cotswold water park using them," says Philip. "We also saw them appear in some movies such as *Police Academy* so we felt they were fun, aspirational toys that would be perfect for a racing game."

Codemasters agreed, so Phillip and Andrew Oliver plunged in, thinking up ways to make it different to their other racing titles. In doing so, they decided to adopt the same top-down formula that worked well with previous games but rework the handling of the water-based vehicles.

"Being in water would make the vehicles handle very differently but the tricky thing was showing this in action on a humble Spectrum," Andrew explains. "We came up with the idea of 'jet bursts' out the back of the jet skis. This gave the appearance of water while showing the amount of thrust and the direction which we felt was visually very helpful for the player."

One of the most important considerations was giving the jet skis the right amount of inertia and turning circles. "We wanted people travelling at maximum speed to lose the ability of agile turning," Andrew says. "This way we could get the classic 'risk-reward' pattern that's so important to gaming. Faster is better, but harder, so you'd push yourself to a speed you could handle."

Once they had perfected such a feel, they looked to create the courses, adding more than they would normally with 'standard' budget games. "We considered creating lakes because we'd been used to racing around those but we wanted variety and we thought racing around dockyards would be far more fun," says Philip. "By doing this, we had hoped to get more environmental moving objects into the courses such as large boats moving across the course but it gave us too many problems, and sadly we didn't get in as much as we wanted."

In the end, *Jet Bike Simulator* didn't sell as well as other sims because of the high price but it did get a few tweaks, re-recorded speech and a re-release as *Championship Jet Ski Simulator* for £2.99. "We were slightly concerned that Kawasaki had copyright on the name jet ski and may come after us, so we called them jet bikes," says Philip, explaining the trepidation behind the name. "We later decided that jet ski was clearly a name we could use without fear of being legally pursued."

ULTIMATE GUIDE:

RAIDEN

Every now and again a videogame arrives that despite being wholly unoriginal sets a new standard for its genre that all others are judged by. Never was there a better example of this than with Seibu Kaihatsu's Raiden and it's time to find out why

Words by Kieren Hawken

Despite being founded as early as 1982 most people would probably struggle to name any arcade games by Seibu Kaihatsu before the electrifying release of *Raiden* in 1990. Perhaps its biggest hits before this point in time were *Dead Angle* and *Dynamite Duke,* innovative *Operation Wolf*-style shooters where you saw the outline of your character on the screen so you could move around to avoid taking hits. They were both a moderate success in the arcades, but are probably best known for their respective Sega Master System and Mega Drive conversions. Originally known as Seibu Denshi, it had licensed many of its games out to bigger companies such as Taito and Tecmo before signing an exclusive deal with the American company Fabtek Inc in 1989 to both manufacture and distribute its games to international audiences. This deal put the company under pressure to not only come up with games that would be successful but also titles that would appeal to western audiences. The funny thing is that despite its huge success *Raiden* was never seen as that game. In fact, quite the opposite. The boss of Seibu, Hitoshi Hamada, had serious doubts about *Raiden* due to its unoriginal gameplay and felt it wouldn't stand out in an already flooded market.

The plot of *Raiden*, which loosely translates as 'Thunder And Lightning' (and is pronounced as *rye*-den not *ray*-den), is every bit as generic as the vertically scrolling gameplay style. It tells us, "In the year 2090, Earth has suddenly become the target of deranged aliens known as the Cranassians. Following the invasion, the World Alliance Military builds a new cutting-edge weapon, the Raiden Supersonic Attack Fighter. Based on a captured alien craft, it is humanity's only hope for survival." So what was it exactly that made *Raiden* so damn good? To put it simply, it just got everything right! In the highly critical world of videogames, people will always manage to find negatives in almost any game and relish pointing out the flaws. But with *Raiden*, the reviewers very much struggled to do that as they praised the fair but challenging difficulty curve, intelligent attack patterns, two-player co-operative gameplay, well-thought-out power-up system and excellent soundtrack. Such was the almost instant success of the game that it went on to sell 17,000 units before it was superseded by its sequel. ▶

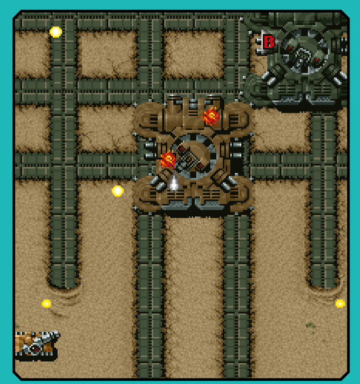


» [Arcade] Whenever you see train tracks it means that armoured rail cars are incoming.



BOSS RUSH

Your guide to ending Raiden's mechanical monstrosities

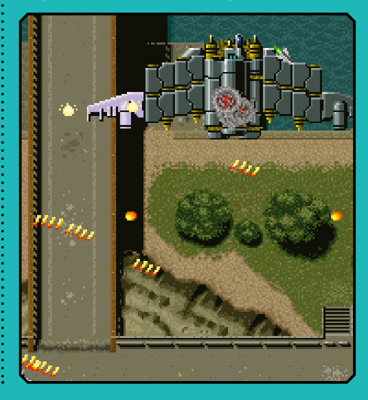


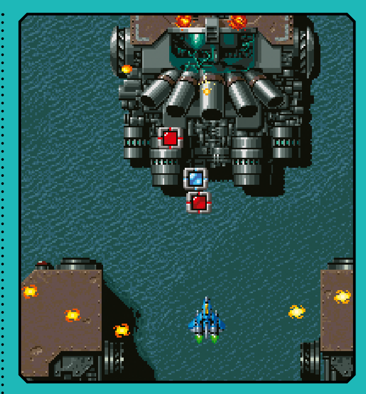
01 DESERT SPIDER

■ A large tank with multiple gun turrets pulls out of a building and then joins another tank on fixed to the rails ahead of it. If you get in close, you can kill the first tank before the second one even gets moving. Alternatively, wait until they are both together then drop a bomb.

02 FLYING FOX

■ A large mothership reverses onto the screen and then starts launching scout ships towards you before a final flurry of bullets. This boss is slow and the scouts have predictable attacks patterns, however it has tough armour so it may take some time to destroy.



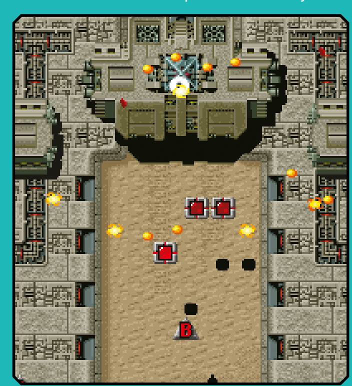


03 PHALANX MK-III

■ A giant gunboat breaks free of the dock and then starts to move up the river unleashing its payload towards you. Shoot out the cannons as quick as you can and this one is really easy to beat. Also annihilate the dockyard for a batch of extra points.

04 GIJIDO

■ This is a moving fort that splits into three pieces almost immediately – a large central part and two smaller installations on each side. Move to the far sides of the screen to take out the side units, then weave to the middle and back to take out the last part of the enemy.



PAINTING PIXELS

Graphics man Shaun McClure on the Jaguar, Falcon and PC ports of Raiden



How did you end up working on *Raiden*?

Well, I actually wasn't meant to! The existing artist they were using was pretty crap and the boss (Martin Hooley) was distinctly unimpressed by his work. The other guy, I won't tell you his name to save embarrassment, was called into Martin's office and told in much less polite terms that his visuals weren't up to scratch. Then I was called in immediately after and asked to save the project. I had only just been hired by Imagitec and it was very unusual for them to ask the new guy to work on such an important title.

What was it like working with the Jaguar and its graphics chip that was so far ahead of anything else out there at the time?

It was a godsend! I suddenly didn't have to fit everything into one universal palette anymore, which was bliss! I had 256 colours to draw each sprite, more than I had ever had before, and the coders even said I could have multiple palettes too if I wanted to get more!

Were you given the original graphics?

We had dumped the graphics from the arcade machine we had in the office, but all the colours were garbled and the resolution was wrong, so I ended up having to completely redraw most of them.

What program did you use to recreate the graphics for *Raiden* then?

Believe it or not we used Deluxe Paint on the Amiga! Photoshop hadn't even been invented yet and this was the easiest/cheapest option. It was actually quite restrictive in a way as it only has access to 4,096 colours and the machines we were targeting could actually use a lot more!

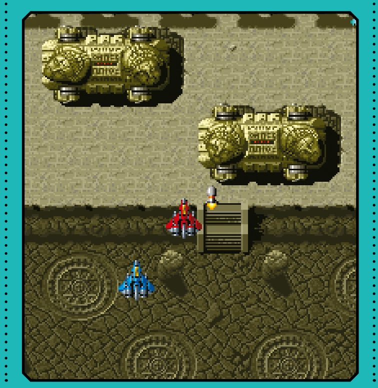


05 LAND CROWN

■ A huge tank manoeuvres onto the screen, then two wings slide out from each side. It then proceeds to despatch armoured drones. This foe's main weapon is a large central cannon, but this can only shoot forward, so stay at the sides and use homing missiles or Vulcan.

06 GUARDIAN

■ Two ancient-looking mechs warp into view. These two-headed metal beasts shoot bullets out of their mouths as asteroids fly across the screen. Shoot them in the back of their heads while avoiding the oncoming asteroids. Take the top one out first then move on to the lower one.

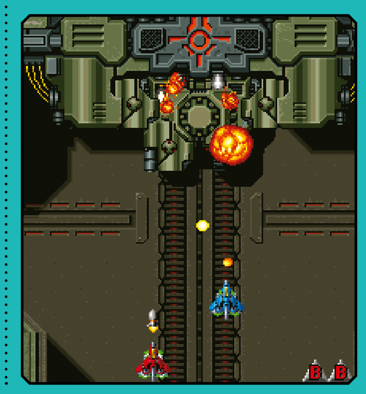


07 ANTONOV MA-27

■ A mothership takes off from the space station and then shoots at you in all directions from both moving and stationary turrets. Wipe out the top central turret first, as this is the most powerful, and the mobile turrets will never stop coming. It's much easier than it first looks.

08 DOREINEJI CORE

■ A tank moves out from the enemy fortress along a rail. As it moves arms come out from each side and bolt extra reinforcements onto it. Try to take it out before it locks into the base at the other end of the rail. Drop a bomb as soon as the arms lock in to catch it at its weakest.



▶ To put that figure in context that is more units than huge hits such as *Battlezone* (15,122), *Dragon's Lair* (16,000) and *Star Wars* (12,695) – no mean feat. *Raiden* still ranks as the most successful game ever produced by Seibu Kaihatsu and one of the best selling arcade shoot-'em-ups of all time.

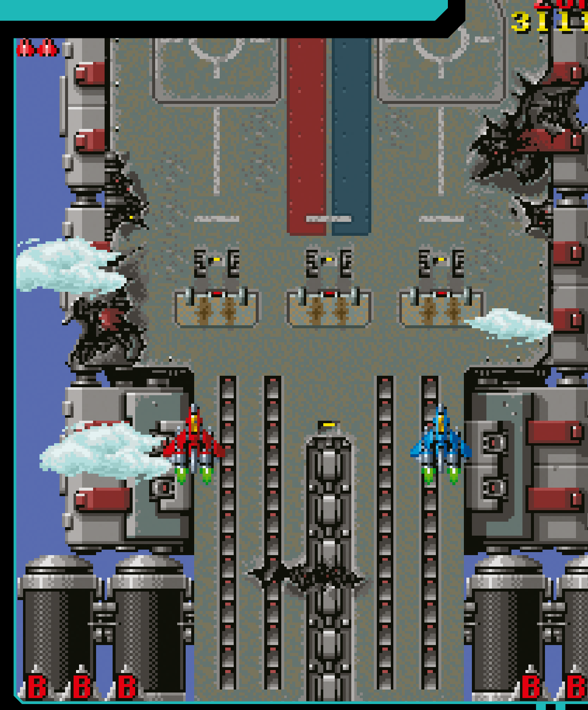
Now let's go back to that aforementioned power-up system for a moment and explain how it works a bit further, as this is arguably the one thing that makes or breaks a game of this type. In *Raiden* you have two types of power-ups that are each split into two subcategories, to keep things simple. Each of these can be upgraded by continuously collecting the same icon and, by waiting patiently, the type of power-up will change from one to another to help make this possible. Be warned, though, because if you collect a different power-up to the one you are currently using it will not only change to the one you just picked up but also reset to the minimum level of strength. The first power-up type is your main shot and the two varieties on offer here are Vulcan (red) and Laser (blue). The Vulcan starts off as a fairly weak double shot but progresses into a full spread of bullets that arcs across the screen meaning only the most powerful of enemies can get past. The Laser however is a single focused stream that while only having a very limited range, has the most power and can eliminate most enemies with ease. Then you have your secondary weapons, which are either homing missiles or standard rockets. Both the power and frequency of these are enhanced by collecting the appropriate icons. From time to time a special 'P' icon will appear on the screen, if you grab this before it vanishes you will be rewarded with a fully powered ship and 100,000 points.

> **"I had 256 colours to draw each sprite, more than I had ever had before"**
> Sean McClure

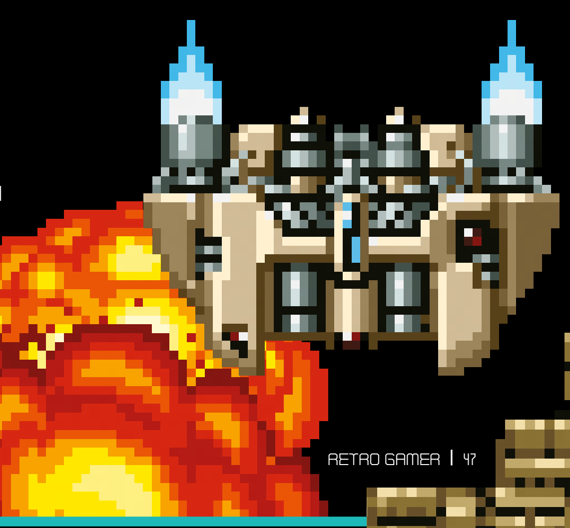


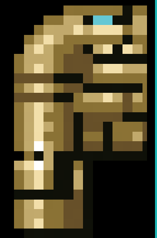
» [Arcade] Two players compete to grab the super 'P' power-up before the giant tank takes them out.

No scrolling shooter is ever complete though without some sort of super weapon at your disposal and *Raiden* certainly doesn't let us down here, either. Your supersonic fighter is equipped with a limited amount of thermonuclear bombs. When detonated these create a huge cloud of flames that fills almost all of the play area, a very impressive sight to behold. While you start with just three, more can be collected as the game goes on and these are also replenished every time you lose a life. There ▶



» [Arcade] Once the set of planet based levels is finished your ship lands at a mid-air base before shooting off into space to continue the fight.





CONVERSION CAPERS



ATARI LYNX

This version uses the Lynx's vertical orientation to keep the arcade game's aspect ratio. Sadly it was released incomplete, so it's missing the music and gives you near-limitless bombs. That aside, the design is pretty authentic.



PC ENGINE

There are two versions of *Raiden* for the console, the original Hu-Card edition and a Super CD-ROM port released a year later. The only real difference is the enhanced CD soundtrack with both versions offering up solid ports of the original.



PC DOS

The PC DOS port of *Raiden* is an almost exact port of the Jaguar version using the same graphical assets. The two main differences come in the form of a remixed soundtrack and the removal of the large side panel.



PLAYSTATION 3

This is the same game as the PSP port, a download-only version of the PlayStation's *Raiden Legacy* that was sold via the Japanese PlayStation store. It's sad that Sony never released it in the west, especially given the game's huge popularity.

FM TOWNS

Definitely one of the most faithful conversions from the original line-up, this port for the obscure computer (and Marty console) features a remastered CD soundtrack and a widened play area. It also offers different play modes.



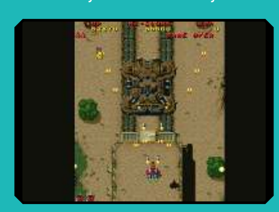
ATARI FALCON

The Falcon version was never finished and exists as a four-player demo that was picked up and published by 16/32 Systems after Atari Corporation's demise. It's a shame as this conversion shows real promise.



PSP

The first portable version of the game since the Atari Lynx, you won't be surprised to learn that this PSP port is in fact just a conversion of the PlayStation game and was sold exclusively in Japan for download via the PlayStation store only.



MEGA DRIVE

This Sega port is similar to the SNES and goes by the same name too. It's also lacking the two-player sadly but does add a status panel at the side to preserve the aspect ratio. The graphics and sound are both weaker than its rival conversion.



ATARI JAGUAR

A launch game for Atari's 64-bit console, Imagitec's port is often criticised for the huge status panel. But this keeps the game to the correct ratio and keeps the original design intact. It also features a superb Jaguar-only soundtrack.



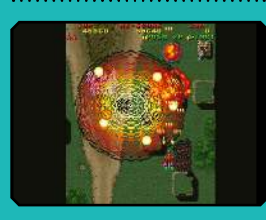
PLAYSTATION

Released as *Raiden Project*, the PlayStation game features nigh-on arcade-perfect ports of both the original game and the sequel . It also features a remastered CD soundtrack and a new FMV intro as well as a TATE mode for the purists.



SNES

Using the title *Raiden Trad*, this port is mostly good. The graphics are authentic and there's a good version of the original soundtrack too. Where it falls down massively is in the removal of the simultaneous two-player mode, which is a shame.



PS VITA

You will be unsurprised to learn that this is once again the same game as the PSP and PS3 and coding duties are once again handled by Hamster Corporation. Again, this was only made available in Japan via download.



» [Arcade] The giant warplanes come from the bottom of the screen, so you must make sure you move out the way in time!

are also other bonuses that can obtained during the game, too, that increase your score in the form of medals, which are usually revealed when you destroy buildings, and the wizard (a cameo of Wiz from one of Seibu's earliest games) that will grant you 10,000 extra points. At the end of each stage you are awarded an additional bonus for the total number of medals collected multiplied by the number of bombs you have left. Should you manage to complete the entire game, then you are rewarded with 1 million points before the game loops back to the start, only with a higher difficulty.

The huge success of *Raiden* in the arcades meant it was quickly snapped up for home conversions by a variety of publishers. Most of these conversions turned out well but the ports for the FM Towns, PlayStation and Atari Jaguar (where it was a launch game) were the particular highlights. It also went on to spawn four direct sequels, with the most recent being *Raidenz V* on the Xbox One and PS4, as well as a spin-off series in *Raiden Fighters*. When Seibu Kaihatsu went bust in 1993 the creators of the game went on to form a new company called MOSS and promptly bought the rights from the liquidators in order to continue the series up to this very day. There's no doubt that the *Raiden* series has gone on to become one of the most beloved shoot-'em-up franchises and one of the few that's stood the test of time. But it all started right here with the original game and if you haven't yet played it then you definitely need to remedy that very soon! *

CONVERSION QUINTET

Martin Hooley was the owner of Imagitec and responsible for five Raiden ports



First of all, how did Imagitec land the gig to do the Atari conversions of *Raiden*?

Well, it all started when I was introduced to Jack Tramiel by Robert Stein of Andromeda Software and it kind of went from there, really. Once he saw what we could do he was very interested in working with us and gave us loads of support in terms of giving us development machines and hardware to work with. The first title we did for Atari was licensed to them and was to develop a port of *Viking Child* on the Lynx. From there we ended up working on numerous games for the Atari 7800, Atari ST, Falcon, Jaguar, Jaguar CD and Lynx. We already had experience of porting arcade shoot-'em ups, with both *Silkworm* and *Gemini Wing*, so *Raiden* seemed like a natural fit.

What support did Atari give you?

They gave us a real arcade machine, which was really good, as we usually just got a board and had to connect it up ourselves. In terms of a dev kit we were given some Atari TT computers, but these were upgraded to Falcons with 14MB of memory and hard drives.

Did anyone from Atari get involved in the development of *Raiden*?

The producer at Atari was John Skruch and his assistant was Julie Long – they were bloody fantastic folk. Imagitec already had a great relationship with them and they always gave us loads of useful feedback. As you know, the effective boss of Atari was Sam [Tramiel] – who was a really good bloke. The CTO was his brother Leonard – he was a different matter. He would hear no wrong to their hardware, if you got into it about problems with the hardware his standard answer was that 'maybe it is your skill/aptitude at fault – not our hardware', so we generally stayed out of his way!

***Raiden* already had a fantastic soundtrack but Imagitec added two extra tracks for the Jaguar version. Can you tell us about the decision to do this and how you kept it in keeping with the original music?**

We already had a great reputation for our audio studio and had created lots of freelance music for companies such as Gremlin Graphics and Electronic Arts. So we already had expert musicians who knew what they were doing, I pretty much let them do their own thing as I trusted them to provide the goods. I do remember that our music player on the Jag was a modified ProTracker player so all our existing Amiga Mods would play, making conversion work easy. We had eight channels of sound with four for music and four for effects. Atari ended up licensing this from us to use on other games.

Was converting *Raiden* a big deal for Imagitec?

Oh yes, most definitely. After we did the cancelled Panther, Jaguar and Falcon versions of the game we were also making ports for the PC and Amiga, too. Atari were going to publish the PC version, but we couldn't find a publisher for the Amiga port so that was scrapped. We ended up getting the licence from Fabtek to publish the PC conversion ourselves.

BIO

Fans of the PC Engine would have had every reason to look forward to *Lords Of Thunder* – Red Company's previous shoot-'em-up *Gate Of Thunder* was utterly fantastic. But beyond the name and the genre, the two games had very little in common. Still, *Lords Of Thunder* was great in its own right. The high production values of the previous game were maintained, with awesome graphics and a great rock soundtrack. The fantasy setting was just as enthralling as space, and the new power-up system with shops between stages added an extra strategic element. A passable Mega-CD version followed in 1995.

MORE CLASSIC LORDS OF THUNDER MOMENTS

Bombs Away



It's almost tempting to use your bombs as soon as you try each different type of elemental armour, as each has a unique effect. We love the fire armour's blazing dragon, which flies around the screen wreaking havoc, but there's something almost divine about calling down lightning upon your foes.

Make My Monster Grow



You arrive in the boss area and what do you see? Nothing but a teeny tiny (and, if we're being brutally honest) rather puny human. But then that little person jumps into the air, lands in the water and emerges as a gigantic mermaid monster, about a hundred times the size of a regular person. Get ready for a big battle!

Death From Above



Lords Of Thunder could just spawn enemies from the top of the screen, but it's testament to Red Company's attention to detail that it doesn't. In this stage, you need to watch the archways in the sky – otherwise you'll be busy fighting and neglect to notice the spearman that has walked out and dived on top of you.

All Systems Full Power



A good spread gun is always useful, and we certainly appreciate having one early on in the game. But we're suckers for awesome weapons, and that's where this flamethrower comes in. The long, linear blast isn't so practical but it does burn the baddies to a crisp, just the way we like them.



Lords Of Thunder

» **PLATFORM:** PC ENGINE » **RELEASED:** 1993 » **DEVELOPER:** RED COMPANY

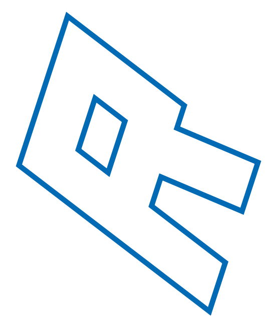
You probably got everything wrong the first time you played *Lords Of Thunder.* You skipped through the map screen thinking it was a simple intermission rather than a stage select, and you had no idea how best to spend the little currency you had in the shop screen. But once the game proper got started, it didn't matter. First impressions count and *Lords Of Thunder* made a very big one.

As the desert background scrolls along, impressive parallax effects give a sense of distance and perspective to the sand, the buildings and the far-off mountains. Enemies flood onto the screen, leaving behind gems when beaten, and antlions erupt from the sand. It sounds as good as it looks, with rock guitars wailing in the background – and just when you think it can't get more impressive, this huge enemy crawls into view with more baddies riding on its back. You're soon dead, thanks to your failure to understand the shop, but it doesn't matter – you immediately start another game because *Lords Of Thunder* has its hooks into you. *

THE MAKING OF STARION

EVEN IN THE HARSH LIGHT OF 2018, WIREFRAME VECTOR GRAPHICS GAMES LOOK INCREDIBLY COOL, AND STARION IS NO EXCEPTION. MOOTED AS A GAME TO RIVAL THE MIGHTY ELITE, IT MAY NOT HAVE HAD THE DEPTH, BUT IT DOES HAVE HISTORY AND… ANAGRAMS?

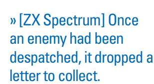
Words by Graeme Mason



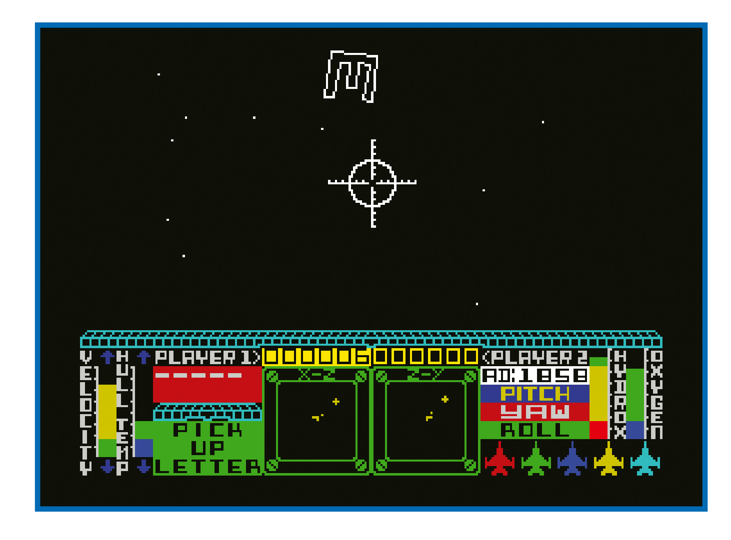
Having already established itself as an all-round premier software house with early games such as *The Hobbit* and *Penetrator,* as well as utilities and books, Melbourne House began to cement its reputation in the mid-Eighties. *Way Of The Exploding Fist, Hampstead, Rock 'N' Wrestle, Terrormolinos, Fighting Warrior* and *Gyroscope* all saw release in 1985, in addition to this lightning-fast space adventure from the mind of programmer David Webb.

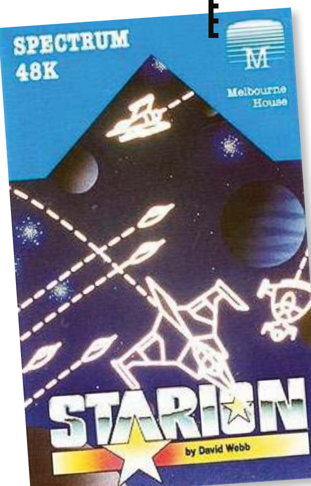
We rewind four years earlier, and David has just published his first program. A 1K ZX81 toolkit, the utility caught the attention of the-then fledgling antipodean company which was keen to focus on the technical side of home computers. David, while at sixth form college and latterly, university, was soon nurturing a profitable side-business, and like many computer enthusiasts in the UK, it was the ZX Spectrum that proved to be the breakthrough for the young programmer. "I moved on to the Spectrum as soon as it came out; it had colour, and a decent screen resolution," he says. "The graphics chip also meant the screen could draw much quicker, although you had to work around the two colours per 8x8 block. Sir Clive was on a budget." In space, no one can hear you scream. Fortunately, as David acknowledges with a smile, you *can* get away with black and white graphics.

Starion was not David's first game, having already dabbled in a brace of programs that appear somewhat familiar. "*Spookyman* and *ETX* were obviously not original game designs," he grins of his early efforts. The former is a *Pac-Man* clone (even the maze design is virtually identical), the latter a copy of the film licence *ET* although, to be fair, beyond its protagonist, it bears little resemblance to the infamous Atari game. Bedford-based Abbex Electronics published both games after taking note of David's ZX81 Toolkit program. "I had taught myself Z80 machine language using the ZX81," he recalls. "That toolkit for the ZX81 with 1K of RAM was my first commercial program which I sold via classified ads." In addition to Abbex, Melbourne House was also interested, although not primarily in games. "They first commissioned me to write a toolkit for the 16K ZX81, that is, a 1K machine with the infamously fragile 16K RAM pack hanging on the edge connector." David met the publisher's boss, Fred Milgrom, several times. "Initially they tried to get me to code-for-hire, but I soon negotiated that to an advance and royalty basis. I guess the relationship was okay given that they ended up publishing most of my work." Despite the games and utilities, it was David's next creation for Melbourne House that helped define his career. *Super Charge Your Spectrum*, a series of machine code programs,



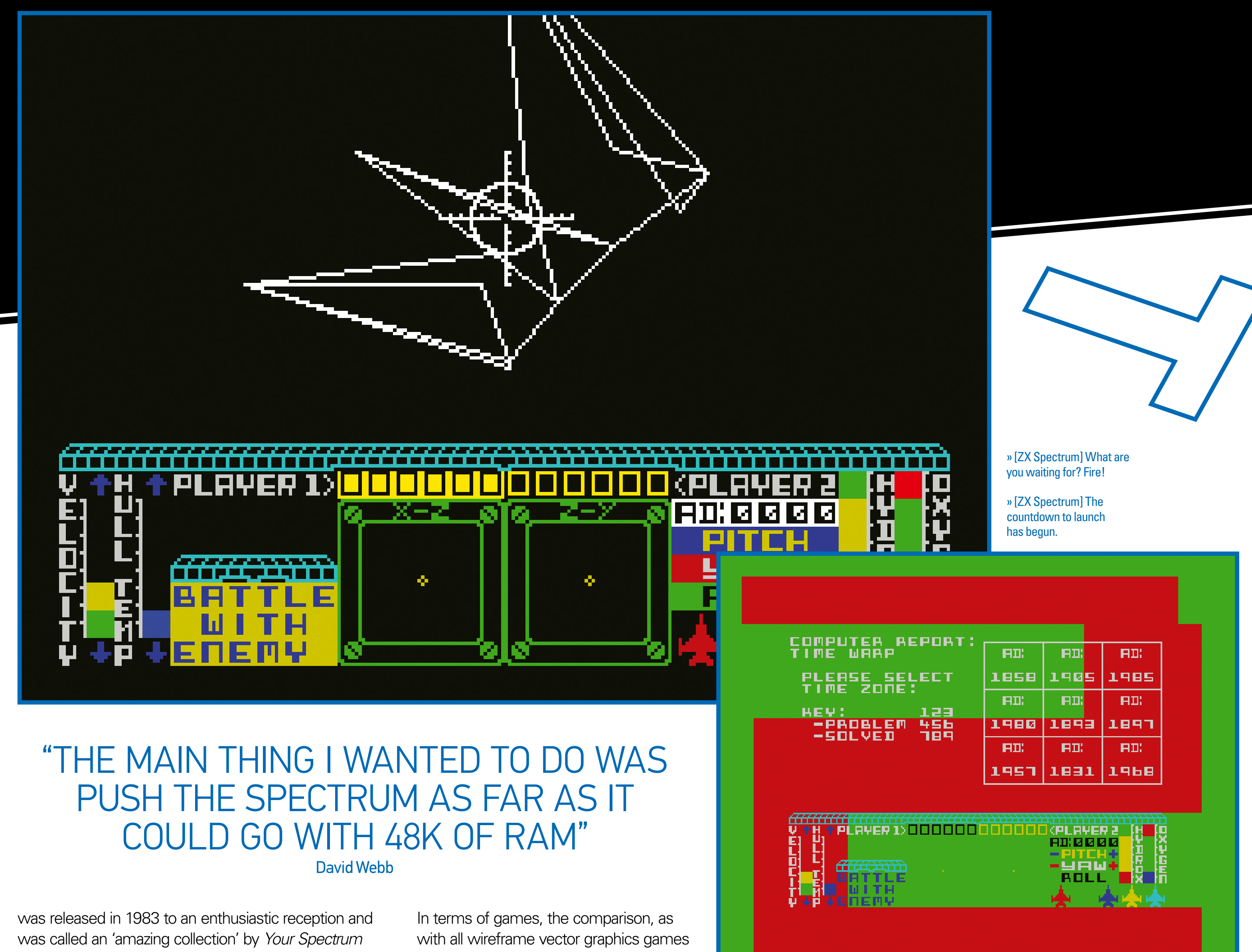
» [ZX Spectrum] Once an enemy had been despatched, it dropped a letter to collect.





IN THE KNOW

- » **PUBLISHER:** Melbourne House
- » **DEVELOPER:** David Webb
- » **RELEASED:** 1985
- » **PLATFORM:** ZX Spectrum, Amstrad CPC, Commodore 64
- » **GENRE:** Shoot-'em-up



» [ZX Spectrum] What are you waiting for? Fire!

» [ZX Spectrum] The countdown to launch has begun.

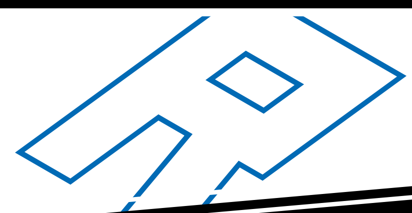
"THE MAIN THING I WANTED TO DO WAS PUSH THE SPECTRUM AS FAR AS IT COULD GO WITH 48K OF RAM"
David Webb

was released in 1983 to an enthusiastic reception and was called an 'amazing collection' by *Your Spectrum* magazine. "I wrote *Super Charge* while doing my A-levels and S-levels," remembers David, "and it was a way for people to accelerate their BASIC programs with chunks of machine code."

David followed up with another book, *Advanced Spectrum Machine Language*, in 1984, but already his publisher had recognised that there was potential for its author to create something special on the screen, as well as on the page. Now studying Maths at Oxford University, David felt a vector graphics and motion simulation would come fairly easily to him, so planned to build a game round this style of graphical display. Games instructions and inlays in the Eighties were prone to exaggeration; in the case of *Starion*, the claims would be accurate. 'The game utilises the most advanced vector graphics system ever developed for a home computer,' exclaims the introduction to David's space adventure, as it also boldly proclaims itself 'a multidimensional, 243 zone space-time travel simulation'. The description was apt, given David's prime inspiration for his space adventure. "The main thing I wanted to do was push the Spectrum as far as it could go with 48K of RAM and a 4MHz 8-bit CPU," he explains, "and generating the graphics smoothly."

In terms of games, the comparison, as with all wireframe vector graphics games of the era, to *Elite* was inevitable, but in *Starion*'s case, awry. "*Elite* came out for the BBC Micro while I was still working on *Starion*, so that was a bit annoying," says David. "But it was not surprising that people were working on similar things for other machines given that we all wanted to push the machines harder." Having originated in the arcades with iconic titles such as *Battlezone*, wireframe graphic games had been slow to appear, at least in an acceptably speedy form, on the home computers.

All that changed with *Starion*. Incredibly fast, it's an exhilarating experience, even today. We'll get to the additional gameplay elements shortly. But for now, how did David achieve that smooth and rapid display? "I sacrificed a lot of sleep," he half-grins. "There were actually several aspects to this. First, timing, and second, coding as efficiently as possible." The latter was a huge part of programming in the Eighties; getting what you could out of the limited memory and technology was a skill that has served most veteran coders since. Clearly enthused by the straight-to-the-metal method of the era, David reveals how he made *Starion* tick. "Remember, the top two-thirds of the screen with the vectors and star field are 256x128 black or white pixels, so that is 4KB or RAM." This view has to be refreshed while the beam from the CRT is not drawing it – which it does 50 times per second. "And the beam draws the display, left to right, one row of pixels at a time, and when it reaches the bottom of the screen it flies back to the top and starts again," David continues. Now comes the clever bit. "So you draw each frame in another 4K bank of RAM and then swap it out when the interrupt signal tells you the coast is clear, in order to avoid tearing. Then, the routine for moving the new frame into the video area of RAM had to be as efficient as possible in CPU cycles. I figured out that I could do this by treating it like a huge stack and using Z80 push/pop instructions that were not intended for that purpose." In addition, the coder had to find time to get the Spectrum to handle other key elements of the gameplay such as reading the player's keyboard inputs and generating sound. It all sounds quite an exhausting amount of work but whatever your depth of programming knowledge, ▶



WIREFRAME WARFARE

Five more wiry wonders



STAR WARS

■ In the early Eighties, the arcades were the best place to experience wireframe games, and this is arguably the daddy of them all. Fast, frantic and thrilling, the legendary sit-down cabinet still provides a fantastic experience if you're lucky enough to find one in good working order.

STARGLIDER

■ Having already coded the wonderful *Starstrike* games, Realtime Software created what many regard as its crowning achievement for Rainbird Games in 1987. An in-depth novella and superb sound complement perfectly the amazing graphics, of which the eponymous enemy craft is a particular delight.

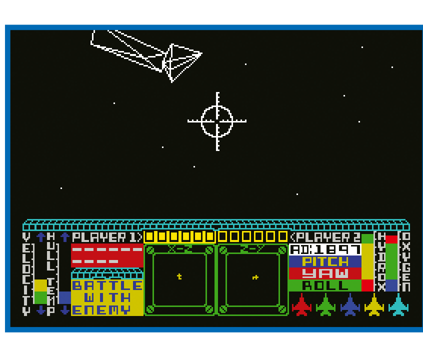




BATTLEZONE

■ The original wireframe classic. Complete with its iconic viewfinder, *Battlezone* is a simple search-and-destroy tank simulation, complete with those beautiful, clean and instantly recognisable wireframe graphics. Slower than most of the games on this list, but a legend of the genre nonetheless.

CONVERSION CAPERS

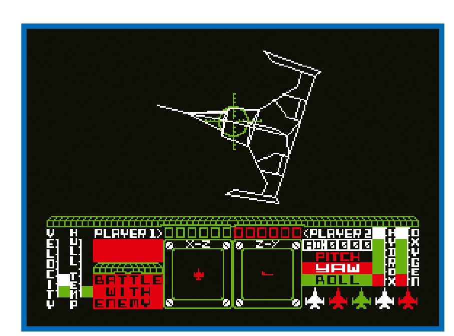


ZX SPECTRUM

■ Developed on a Memotech computer, the prime version of *Starion* saw the ZX Spectrum squeezed and stretched to its absolute limits by programmer David Webb. Fast 3D graphics that had to be seen to be believed elevated the game and its author, and gave publisher Melbourne House another huge hit, selling over 100,000 copies.

AMSTRAD CPC

■ Converted by David Webb from his own ZX Spectrum code, this Amstrad port of *Starion* proved to be the coder's final piece of videogame work. It's a great effort for David to bow out on, too, offering all of the speed of the original game together with a much-needed dab of colour and improved sound effects.

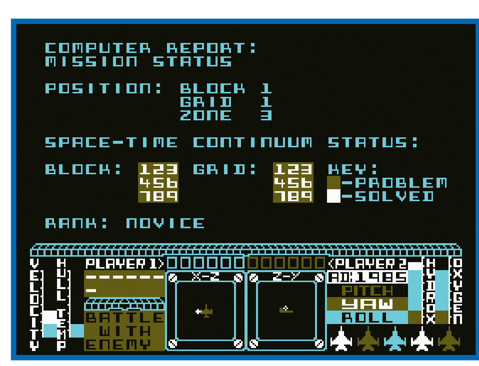


COMMODORE 64

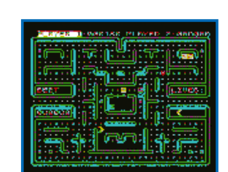
■ The C64 version of *Starion* was farmed out to another coder, with Louis Madon credited on the loading screen. But while 3D displays could work on the computer, *Starion* is one of several examples that got it wrong. The core design is there, but the slow speeds render this port virtually unplayable.

▶ the result looks hugely impressive, and plays astonishingly well.

But there's more to this game than just simple shooting. The year is 2010, and you are Starion, the most successful student of the Space Academy, and selected to pilot an experimental time ship named the SS Stardate. "I wanted the game to be set well into the future," chuckles David. "25 years seems a long time when you're 19 years old! Actually, I didn't want it so far away that it seemed inconceivable to players, but in retrospect maybe I should have made it 2210 or something." Piloting the time ship, the player had an extraordinary task to perform: travel throughout time and correct the destruction wrought by aliens. Evil aliens, naturally, and this is accomplished by destroying their spacecraft and collecting the resulting dropped letter. Once all the enemies within a time zone are destroyed, the letters can be rearranged to give the name of a historically significant item stolen from a nearby time zone. When all 27 time grids and 243 time zones have been corrected, a final code will allow the player to exit the space-time continuum and become Event Zero, assuming the title of Creator. Yes, you read that right: in *Starion* you get to become god. But to paraphrase *Blade Runner*'s Roy Batty, not an easy task, to become your maker. "Well I didn't expect every player to finish it," smiles David. "That's still the case with most games,



» [Amstrad] The status screen displayed crucial information.



DEVELOPER HIGHLIGHTS

SPOOKYMAN
(PICTURED)
SYSTEM: ZX SPECTRUM
YEAR: 1982

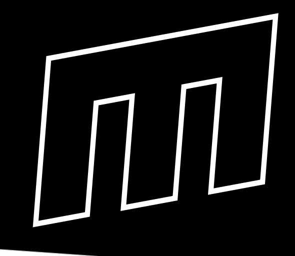
SUPER CHARGE YOUR SPECTRUM
SYSTEM: ZX SPECTRUM
YEAR: 1983

E.T.X.
SYSTEM: ZX SPECTRUM
YEAR: 1983



» After working in games, David moved to Hong Kong in 1991 and is now an activist.

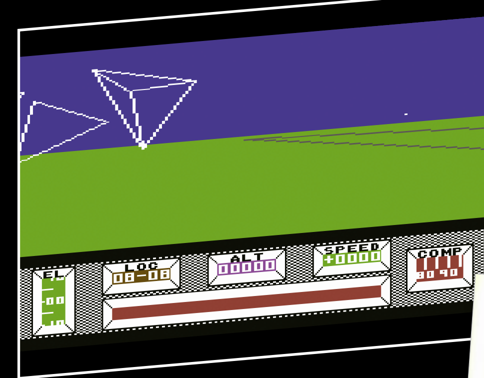




ELITE

■ Ostensibly a space trading game, there's a wealth of combat involved in David Braben and Ian Bell's classic, usually against the aggressive Thargoid insectoid alien race. It's all portrayed with atmospheric black and white wireframe graphics that inspired a whole genre of space shoot-'em-ups.



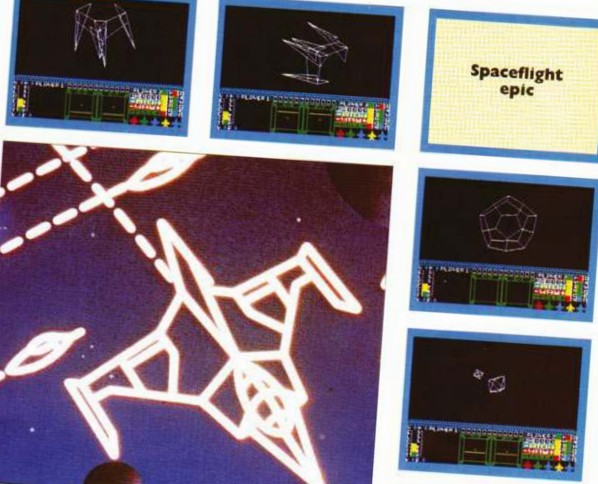


MERCENARY

■ Stranded on the hostile planet of Targ, *Mercenary* pitches the player into a civil war and, as the name suggests, is able to supply help to either side for cash and other rewards. *Mercenary*'s 3D wireframe graphics complement its open-world design perfectly.

» An advert for *Starion*, showcasing its wireframe graphical style and Crash Smash status.







» [C64] With all the letters collected, it's time to solve that anagram.

"TO GET STARION FINISHED I HAD A FINAL PUSH AND CODED FOR ABOUT 36 HOURS STRAIGHT"

David Webb

that most players never reach the highest level – but they get bragging rights when they do! If it had been easy to complete the game, then people would not feel they had value for money."

At the core of *Starion* are its anagram puzzles, effectively making it the first shoot-'em-up-slash-anagram space adventure. "I always enjoyed *Scrabble*," remembers David, "so there's a bit of that in there, and I wanted to devise a game that had multidimensional levels so that it could have some addictive/completion qualities, something all designers strive for." The design also assisted David in optimising *Starion* to its limits. "RAM was in short supply, so a word-based game level was a very efficient use of it. Each level just has a short text clue, and an answer." Adding more gameplay to this scenario remained impossible. David also jettisoned the idea of hidden-line removal and shading for his graphics, in the pragmatic realisation that it would have slowed and rough-edged his game into an almost unplayable state.

***Starion* was developed on David's Memotech computer, connected to the Spectrum via the RS232 port housed on the ZX Interface, the pages of code squirted down a wire, ready for testing on its commercial platform.** The result was met with almost universal acclaim, at least on the ZX Spectrum. "Everything is drawn with extreme precision, very quickly and smoothly," sang *Crash* magazine in its 94% Smash-awarding review. "I'm surprised by how complex shapes can be spun, rotated and whizzed towards you – I must say the effect is amazing." Over 100,000 copies sold later, and *Starion* was a palpable hit for David and Melbourne House. Yet strangely, despite the acclaim, its coder, save a conversion to the Amstrad CPC, promptly called time on games programming. "Yes, that was basically the end of my short game-writing career," explains David. "I was two years into a maths degree, and needed to stop and concentrate on my finals. It was also clear to me in 1985 that with increasing computing power, it wouldn't be long before a single author could no longer produce a top-quality game on their own, and that it would take a larger team of people. I didn't know anything about business, so it was too risky for my appetite and I didn't want to become just a coder for someone else's company."

Gaming's loss was the financial industry's gain as David graduated in 1986 and moved into corporate finance, retiring in 1998 and setting up his own web site, webb-site.com. The achievement of fame through *Starion*'s cassette inlay (as part of his print-based contract, David had a right to be identified as author of anything he produced for Melbourne House) and resultant earnings did little to dissuade the young coder. In a classic videogame moment, the deadline crunch helped seal his career decision. "To get *Starion* finished, I had a final push and coded for about 36 hours straight," he remembers painfully. "Melbourne House sent someone to Oxford to stand over me and make coffee, because they wanted to get the game out before I left for Easter. So, in the end, it was a classic hackathon!" ✱

» [ZX Spectrum] Looks like the Galactic Empire from *Star Wars* made its TIE fighter designs open source.


144 · KMH ·
5TH

Lotus III: The Ultimate Challenge

DON'T SWEAT ABOUT THE SMALL STUFF



» ATARI ST » 1992 » MAGNETIC FIELDS

I'm the sort of person that loves adaptations – I can't help but love the slightly different interpretations of a concept when it migrates across various entertainment media. It's why you'll find both the *Scott Pilgrim* comics and film on my shelves, as well as the *Battle Royale* novel, films and manga. As a result, I tend to enjoy doing the Conversion Capers you often find in this fine publication, and sometimes I just compare games across platforms for fun.

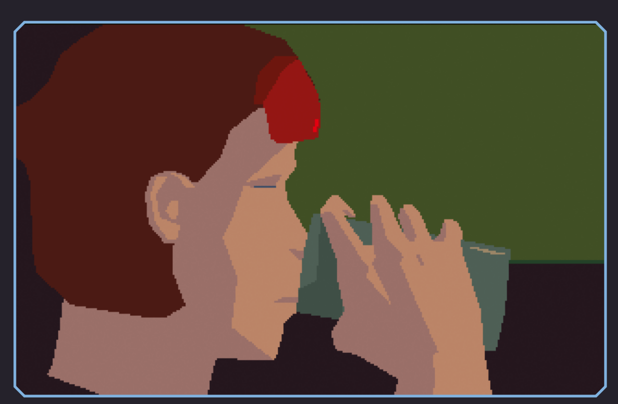
One such occasion came recently when I took a look at *Lotus III: The Ultimate Challenge*, which I'd grown up with as *Lotus II: RECS* on the Mega Drive. I was aware that the games were substantially similar to play, and was more interested in comparing the music between versions. I knew the Amiga tunes were great and I'll always love the sound of the Mega Drive's YM2612, but I was interested to see how the Atari ST's relatively limited YM2149 chip would handle these tunes. I was pleasantly surprised, too – the strong compositions were still intact when run through the ST, with all the energy and character of the other versions.

Some people baulk at the idea of enjoying games on 'lesser' platforms, screaming, "Why would you play that version?" But surely we can live and let live – if the creativity of the developers shines through despite technological restrictions, that's all that matters. Besides, it's a fine racer on any platform, no matter what the music sounds like. *

ULTIMATE GUIDE: ANOTHER WORLD

THERE AREN'T MANY 16-BIT GAMES THAT COULD TRULY BE DESCRIBED AS 'CINEMATIC', BUT THIS ACTION ADVENTURE MASTERPIECE EARNS THE TITLE AND THEN SOME. JOIN US FOR A TRIP TO A WORLD THAT'S JUST AS DEADLY AS IT IS BEAUTIFUL

Words by Nick Thorpe

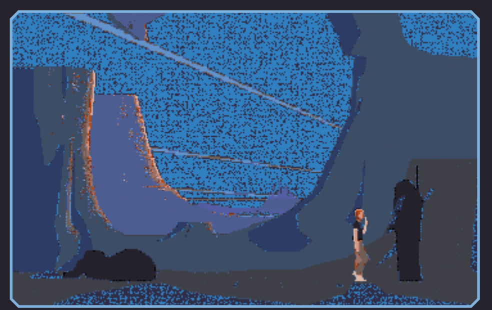


» [Amiga] Lester sips on a cool drink, shortly before leaving Earth behind forever.

Lester Knight Chaykin is the sort of guy who, if he were real, would be the object of everyone's envy. Not only is he clearly a gifted physicist, he's the owner of a pretty neat Ferrari and a proud bearer of ginger hair. Indeed, everything seems to be pretty great for Lester, until he returns to the lab one fateful night for a cheeky bit of particle acceleration that goes horribly wrong. One errant lightning bolt overloads the system and suddenly Lester and his desk wind up underwater on a planet that is decidedly not the Earth we all know. We hate it when that happens.

But if the story of *Another World* as a game is that of a single visionary going horribly wrong, the story of the development is that of one getting things right. The game was primarily driven by Éric Chahi, who had previously worked as a graphic artist for Delphine Software on *Future Wars*. Though he wasn't a programmer on that game – that job fell to Paul Cuisset, who would go on to create *Flashback* and *Shaq Fu* – there was enough documentation available for the Amiga that Éric felt able to return to programming, which he'd previously done during the Amstrad days. This allowed him almost total control of the game, from concept to programming, graphics and even some sound effects. His only major collaborator for the game was Jean-François Freitas, who provided additional sound effects and composed the game's music.

As a result, *Another World* was not a normal game at the time it arrived. Normally, the sort of plot detail described above would be confined to a game manual or a text prologue, but thanks to its use of vectors, rather than predefined sprites, *Another World* was able to show cinematic full-screen animations in an era before full-motion video – and this meant that we were able to watch the events unfold for ourselves. What's more, the game looked the same, so when the player was unexpectedly thrown into the deep end and expected to rescue Lester from a watery grave, the game looked just as good. Though



» [Amiga] Lester attempts to befriend his rescuer. The alien is about to demonstrate how unimpressed he is.

HEART OF THE ALIEN

Though *Another World* is widely regarded as a classic, you'd find few players who even know that it received a sequel. That's because *Heart Of The Alien* was tied to the Mega-CD and only released in North America and Brazil. The game arrived in 1994, well after the platform's initial hype had subsided.

As the title suggests, *Heart Of The Alien* deals primarily with Lester's alien friend Buddy and accomplice from the first game, who you'll play as. The game picks up where the original left off, with Buddy and a near-dead Lester flying in on the dragon-like creature from the first game's end sequence. A lengthy cinematic opening reveals more about Buddy and his world, showing that his home was attacked by hostile forces before he was imprisoned, and many of the first game's events are recapped from the alien's perspective, showing what he got up to while absent from Lester's view. The game's look and feel closely follow those of its predecessor, and ultimately provides firm closure to Lester's story.

The game was broadly well received, earning 91% from *Sega Pro* in the UK, 84% from Consoles+ and 85% from *Player One* in France. Éric Chahi was not involved in the development of the game besides approving the initial concept, and doesn't have a lot of love for it. He states on his website "neither the animations nor the game, entirely developed by Interplay, were up to the job".

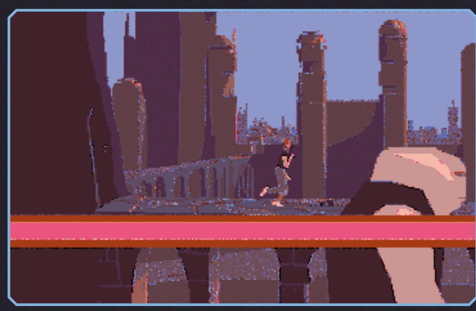
backgrounds were ultimately constructed as bitmaps rather than from polygons, the world maintains a matching minimalist look throughout, which gives the game a striking look.

A*nother World* is best described as an action adventure game, which uses the platform genre as a base. Your goal is to guide Lester to survival on a planet where all of the local lifeforms seem intent on killing him – a kind of 'Space Australia' environment. Right from the off, even the smallest flopping worm can carry some deadly poison capable of killing our hero, and that's to say nothing of the beast that chases you down if you can make it past those pests. It's just after this chase that you quickly learn about one of *Another World*'s major strengths, context-sensitive controls. Though Lester has a standard set of actions for most of the game, specific situations will require him to perform one-off feats like swinging a cage or picking up an object. In such cases, the single-button joystick controls respond naturally, with the action you're supposed to perform as a player matching up with your first instinct.

One of the great strengths of this system is that it allows the game to show you how things work, rather than telling you. After you first pick up a laser blaster, your interactions with enemies will teach you about its three capabilities – shooting enemies, shielding yourself and destroying obstacles. The game takes the same approach to its narrative, too. Soon after Lester's arrival on this hostile planet, he's imprisoned with a large humanoid alien. Though you never learn his name during the game (he's commonly nicknamed Buddy), you can tell from his actions that he's more than just someone to escape with.

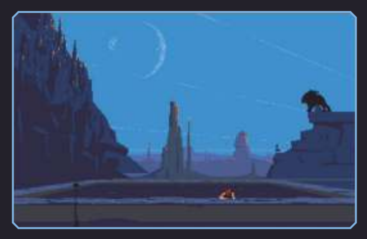
Of course, the strong focus on the cinematic experience does result in a more rigidly defined solution than most platform games. Because Lester performs those context-sensitive actions rather than allowing the player to tackle problems dynamically within the game's systems, and because enemies have to be in specific places at specific times for crucial scenes, there's no variation from game to game. It's a short game, too – in its original form, a perfect game will take less than 20 minutes.

Still, when *Another World* arrived on the 16-bit computers in 1991 after two years of development, it was a revelation. Praise for the game focused on its unique control system, striking graphics and smart storytelling. *Amiga Power*'s Mark Ramshaw noted that "the intuitiveness of the controls is quite remarkable" in an 89% review, while *CU Amiga*'s Steve Keen gave the game 91% and opined



» [Amiga] You'll be able to see Buddy in the foreground or background, and sometimes even need to help him.

CONVERSION CAPERS



AMIGA

1991

■ As the original format for the game, the Amiga is a reference point for most other versions. It's worth noting that it's a bit shorter and harder than all except the Atari ST version. Still, you don't miss too much – some might even argue that the pacing is tighter.

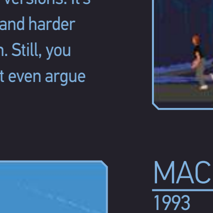


ATARI ST

1991

■ The Atari does a good job here, with only slightly different colours and a lack of music compared to the Amiga release – and given that the music was only present in the intro and ending sequences, it's no major loss. The sound effects are just fine, too.





PC (DOS)

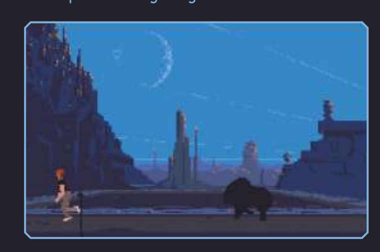
1992

■ Responding to criticism of the original release, Delphine Software added more checkpoints to lower the frustration factor. Additional areas were also created to increase the play time – it's about 15 per cent longer. As a result, this is the first of the complete versions of the game.

SNES

1992

■ This runs at a slightly lower resolution than the home computer versions, but the jump move is now assigned to the buttons rather than the joystick, which is a welcome improvement. There's a new soundtrack, too, adding to the atmosphere during the game.



APPLE IIGS

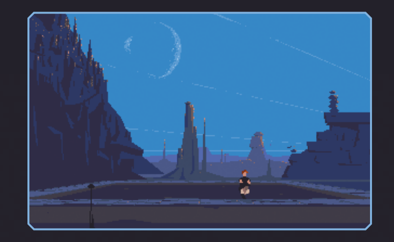
1992

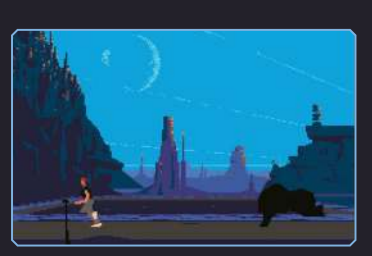
■ This conversion comes straight from the SNES source code, and offers high-quality graphics and sound. The choice of screen modes does make a difference to the game's performance, which feels a touch slower than that of the other computer platforms.

MAC

1993

■ This is a straight conversion of the DOS release, with nothing major or minor to distinguish it. That's just fine by us, though, as both versions are perfectly good ways to play the game. As you might expect, you'll need an older Mac OS to run this.





MEGA DRIVE

1993

■ This version retains the lower resolution and improved controls of the SNES version, and features an arranged version of the soundtrack introduced in that game, this time by Tommy Tallarico. It's a good way to play the game, but a redundant one if you have access to a Mega-CD.

MEGA-CD

1994

■ The Mega-CD version is slightly different to the cartridge version, featuring an improved resolution and added loading delays. The big deal here is that the game contains an exclusive sequel, *Heart Of The Alien*. Frustratingly, this was only released in North America and Brazil.





3DO

1994

■ As you can see, *Another World* received a major graphical overhaul here, as the backgrounds are now more detailed bitmap images. Éric Chahi has expressed a distaste for this look, finding that they made the game 'overworked', but you may feel that it's better – it's a matter of preference.

PC (WINDOWS)

2006

■ This 15th anniversary version was converted from mobile and PocketPC, and features a second graphical overhaul. This one was by Éric Chahi and is in keeping with the original's look, working better at higher resolutions without losing the minimalist aesthetic.





IOS

2011

■ This 20th anniversary version is an exemplary update, compiling everything into one package. The game is complete with its extra scenes, both the original and anniversary graphics, plus the original and remastered soundtracks with the console ones as a bonus.

AND THE REST...

■ Other versions of *Another World* include releases for Symbian mobile phones and PocketPC, which formed the basis for the *15th Anniversary Edition*. An impressive officially approved Atari Jaguar version was released on cartridge in 2012, incorporating the original graphics and the updated anniversary graphics. With a limited production run of well under a thousand copies, it now changes hands for hundreds of pounds. The *20th Anniversary Edition* (later known as the *25th Anniversary Edition*) was ported to PS3, PS4, Vita, Xbox One, 3DS, Wii U, Switch, PC, Mac and Android, and is more or less equal across platforms.

> “Another World is the kind of landmark game that should be experienced by everyone that cares about the medium”

THE EXTENDED CUT

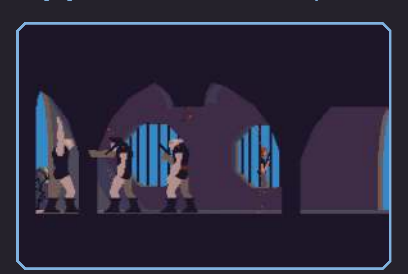
Later versions added to the Amiga and Atari ST's 'theatrical release' – but what were the new scenes?

After the initial release of *Another World* was criticised for its short length, Éric Chahi added additional scenes to the game – by his own account working 16-hour days, seven days a week for two months. These take place shortly after Buddy rescues Lester from the dead end corridor near to the end of the game, and actually add some unique puzzles.

After Lester and Buddy escape the dead end, they end up outside a guard station. Buddy walks into it and feigns surrender – to pass, you'll need to guide Lester around the outside and into the back entrance, allowing Buddy to overpower one guard while you engage the other in a gunfight. Once you've passed this, Buddy will throw Lester across a chasm. However, your alien friend fails to make the jump himself, preventing a deadly drop by clinging to a cloth shade. To rescue him you'll need to fight through a palace, a feat which involves baiting a guard into blowing a hole in the floor with grenades, holding one alien up at gunpoint, and setting a caged beast free in order to scatter the waiting guards. Once you've made it back to Buddy, a floor will appear beneath him allowing a drop to safety, and the two of you teleport up to hijack a vehicle.

If nothing else, this sequence shows just how labour-intensive *Another World* was to create. For all the time that Éric Chahi spent working on it, this additional content only lasts about three minutes if played without error. The addition is welcome, but Amiga and Atari ST purists shouldn't feel too hard done by for not getting it.





» [PS4] Buddy is being held up while Lester has to sneak around behind his aggressors.

that the polygon graphics were "refreshing and essential to the game's addictiveness". Reviewing the game for *The One Amiga*, Paul Presley awarded the game 93% and commented that "Quick cuts, close-ups and smooth animation all add to the tension and atmosphere created."

Criticisms focused on the game's short length, rigidity and focus on trial-and-error solutions. In a 90% review for *Zero*, Duncan MacDonald noted that "this is not *totally* unlike a Don Bluth game," a sentiment shared by Trenton Webb of *Amiga Format*, who noted that "at its worst *Another World* has distinct *Dragon's Lair*/*Space Ace* overtones". He also complained that, "Time and time again it slays you with no chance or choice, then dumps you back further than you wanted to go." Despite the criticism, he awarded the game 82% – the game's low point in the UK press.

After the initial release, Interplay signed up *Another World* for an American release (renamed *Out Of This World*) and conversion to a variety of other platforms – but it did require some changes first. The game was extended slightly, with new scenes inserted immediately before Lester and



» [Amiga] One short segment of the game requires you to swim back through the cave you previously flooded.

» [Amiga] This infamous swimming pool gatecrash was censored in the SNES game, to minimise the appearance of bums. Really.

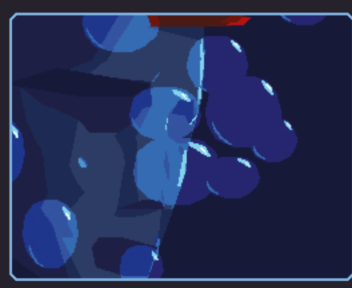
his buddy hijack a vehicle to aid in their escape. Extra checkpoints were added to minimise frustration, and in-game music was added for the console versions. Further revamped versions began to appear from 1994 with the release of the graphically overhauled 3DO game, and Éric Chahi himself would remaster the game in 2006 to mark its 15th anniversary. *Another World*'s story would be concluded in *Heart Of The Alien*, a much lower profile release for the Mega-CD. After this, Éric Chahi would work on *Heart Of Darkness*, an ambitious platform game that made heavy use of prerendered 3D and took many years to develop.

Another World is the kind of landmark game that should be experienced by everyone that cares about the medium. The game sold over a million copies and achieved critical praise. It has been cited as a favourite game by the likes of Hideo Kojima (*Metal Gear Solid*), Keiichiro Toyama (*Silent Hill*) and Goichi Suda (*Killer7*). What's more, there are few excuses not to try it. The game can be completed in an evening, and a significant effort has been made to keep the game available on modern devices. So if you haven't already, take a journey to *Another World* – just try not to step on the grass, as it'll probably kill you. *

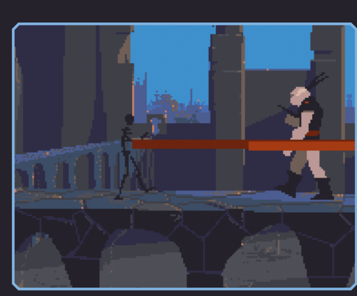
BEAUTIFUL DEATH

Another World's cinematic tendencies meant that it featured some striking death sequences – check these out

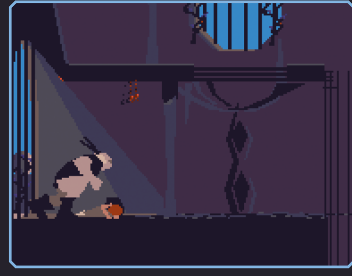

CRUSHED BY ROCKS


DROWNING

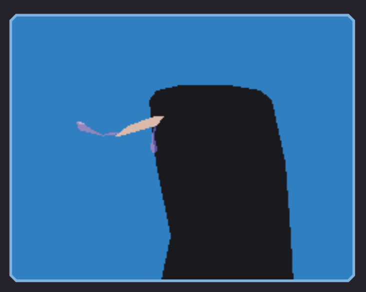

EATEN ALIVE

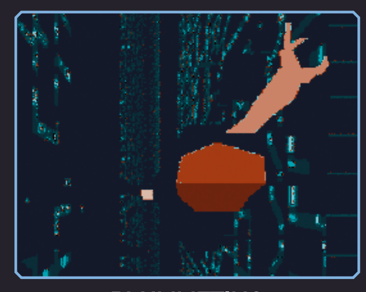

DISINTERGRATION

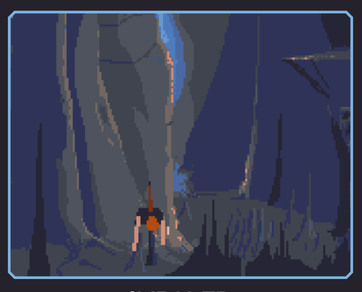

EXPLODED


PUMMELLED


MAULED


POISONED BY A WORM


PLUMMETING


IMPALED



STUN Runner

Could Atari pack polygons into a portable game? No – but you won't care with a conversion this good

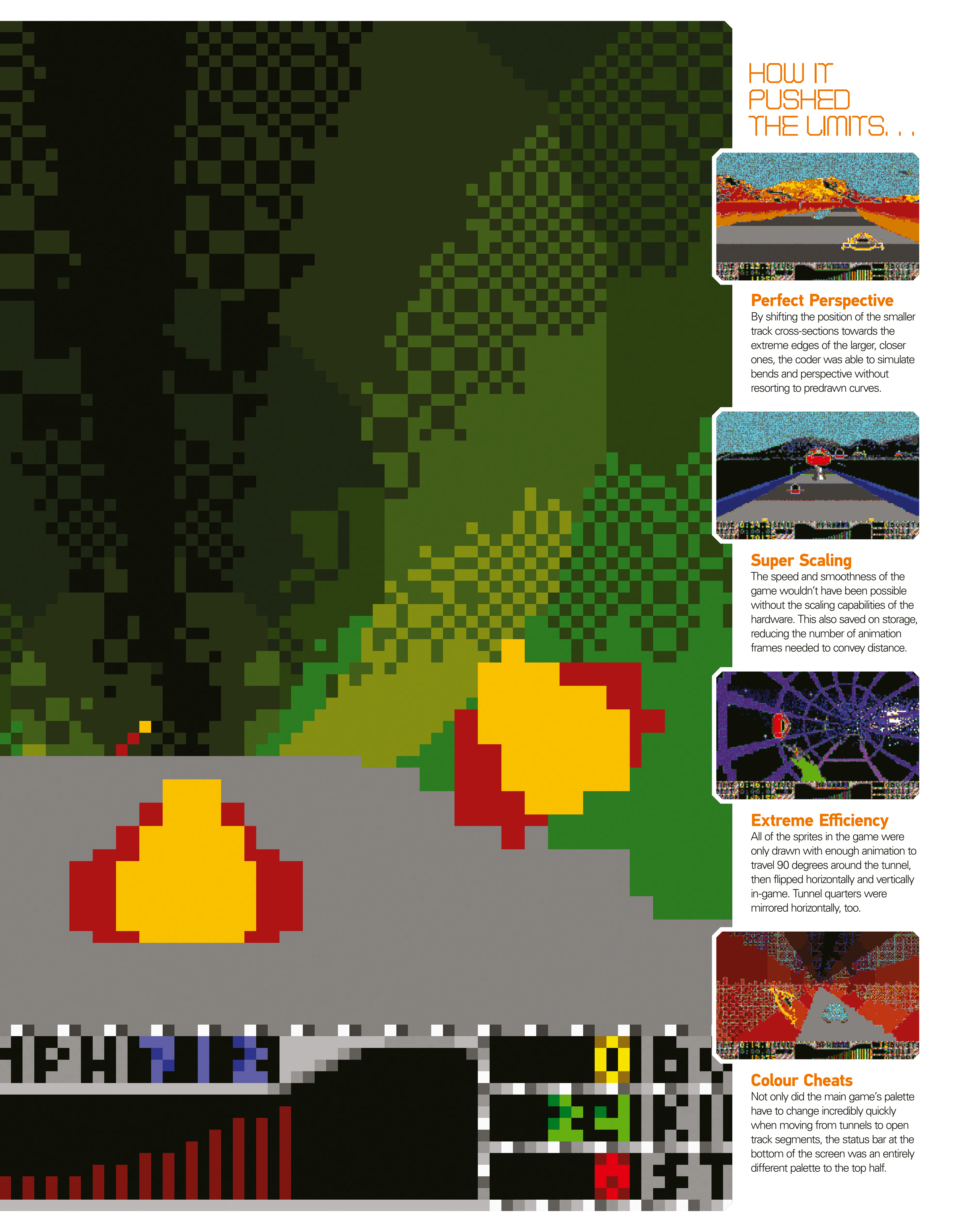
» **PLATFORM:** LYNX » **DEVELOPER:** ATARI GAMES CORPORATION » **RELEASED:** 1991

Sometimes, arcade conversions demand miracles of their programmers. We'll surely all remember occasions when the gulf between a state-of-the-art coin-op and a lowly home system was just too great to overcome – *Double Dragon* on the Atari 2600 and *Street Fighter II* for the ZX Spectrum both come to mind. Yet sometimes, a coder will rise to the occasion and pull off the seemingly impossible, thanks to their ingenuity and a little bit of artistic licence. D Scott Williamson did just that with the *STUN Runner* conversion for the Lynx.

In the arcades, *STUN Runner* was a bit of a marvel – a fast and flashy blend of racing and shooting, with a striking polygonal tunnel and intense action. Despite being a powerhouse in its own right, there was no way that the Lynx would handle a 3D game like that while still retaining the spirit of the arcade game, as proven by the slow speed of the *Hard Drivin'* conversion released later in the system's life. What's more, thanks to the tunnel, regular line-scrolling effects used to simulate roads in other games couldn't be used here.

Fortunately, the Lynx hardware was extremely capable when it came to simulating 3D, as it was able to perform sprite scaling. This was a very big deal, given that this was a feature that wasn't even common in home consoles at the time. Using this technique, the game draws road and tunnel cross-sections with increasing size as they reach the screen. Repositioning these sprites allowed for perspective to shift as the player moves around. This same technique could also be used for the tunnels, which were drawn in quarter segments to allow for the shading differences between the top and bottom halves of the tunnel.

With the polygonal tunnels replaced by something more suited to the capabilities of the Lynx, everything else fell into place pretty easily. *STUN Runner* was able to fully achieve the speed and excitement of the arcade game, and it remains one of the most exciting games on the console. In fact, it was the best of the home ports until an emulation of the arcade version appeared on *Midway Arcade Treasures 3*, some 15 years later – and you're unlikely to carry an Xbox in your bag to play *that*. *



HOW IT PUSHED THE LIMITS. . .

Perfect Perspective
By shifting the position of the smaller track cross-sections towards the extreme edges of the larger, closer ones, the coder was able to simulate bends and perspective without resorting to predrawn curves.

Super Scaling
The speed and smoothness of the game wouldn't have been possible without the scaling capabilities of the hardware. This also saved on storage, reducing the number of animation frames needed to convey distance.

Extreme Efficiency
All of the sprites in the game were only drawn with enough animation to travel 90 degrees around the tunnel, then flipped horizontally and vertically in-game. Tunnel quarters were mirrored horizontally, too.

Colour Cheats
Not only did the main game's palette have to change incredibly quickly when moving from tunnels to open track segments, the status bar at the bottom of the screen was an entirely different palette to the top half.

the making of The Neverhood

After leaving Shiny Entertainment, artist Doug TenNapel set up a studio with Mark Lorenzen and other ex-Shiny developers. Mark explains how their love of point-and-click adventures led them to design the claymation cult classic The Neverhood

Words by Rory Milne



IN THE KNOW

» **PUBLISHER:** DREAMWORKS INTERACTIVE
» **DEVELOPER:** THE NEVERHOOD, INC
» **RELEASED:** 1996
» **PLATFORM:** PC
» **GENRE:** POINT-AND-CLICK ADVENTURE

David Perry's sale of Shiny Entertainment to Interplay in 1995 came as something of a shock to his staff, and in the period that followed many of his firm's key developers left the acclaimed studio, including *Earthworm Jim* creator Doug TenNapel.

Subsequently, Doug announced that he was setting up his own design team, and a number of former Shiny developers opted to join him. Among their number was artist and coder Mark Lorenzen, whose friendship with Doug dated back to long before their time at Shiny. "I first started doing work for Shiny because my best friend Doug TenNapel was working there," Mark explains. "I went to college with Doug, and he recommended that I join up. So when Doug was going to form his own group I felt like it was natural that I go with him."



» [PC] The musical doorbell puzzle is based around five monotone chimes and a mouthful of water.

Doug's group became known as The Neverhood, Inc, and this name would lend itself to the team's first project, which grew from the developers' weariness of working on platformers coupled with their appreciation of an entirely different genre. "We all had an affinity for the point-and-click adventure games that were coming out of LucasArts at the time – and for *Myst*," Mark notes. "We had a consensus that we all would enjoy working on that kind of a game, a narrative-driven game, and that we wanted a break from platformers."

Doug's team let artwork be the guiding force behind its efforts, and so before going near a computer they worked out their point-and-click adventure entirely on paper. "Most of what you saw in terms of interaction, props and objects was all conceived before we started making the game," Mark discloses. "We storyboarded it out on paper. Before we started shopping the idea around, we had pretty much drawn the whole game out. So collecting the video player disks, the pins to pop balloons and the keys to turn locks – those kinds of things – were all conceived upfront."

Of course, characters were required to populate *The Neverhood*, and given that this task fell to Doug it's perfectly understandable that the player



» [PC] Surreal characters are a staple of *The Neverhood*, like the guy who lives in his TV.

» [PC] Odd challenges define *The Neverhood*, such as sending a projector and a mouse up a chute.



DEVELOPER HIGHLIGHTS

THE NEVERHOOD
SYSTEM: PC, PLAYSTATION
YEAR: 1986

SKULLMONKEYS (ABOVE)
SYSTEM: PLAYSTATION
YEAR: 1998

BOOMBOTS
SYSTEM: PLAYSTATION
YEAR: 1999



» After *The Neverhood*, Mark Lorenzen worked on several other claymation games.

character he designed for the project – Klaymen – should bring to mind his popular Shiny character *Earthworm Jim*. "There might have been a passing awareness," Mark concedes, "but it was certainly not by design. It was just Doug's penmanship; all his characters tend to have that same aesthetic. There definitely wasn't any plan to feed off *Earthworm Jim*'s popularity. If there had been there would have been some other invertebrate in a super suit – a starfish in a Tesla or something!"

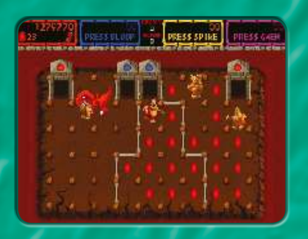
Other characters soon followed, including the godlike Hoborg and his childish creation Willie Trombone, whose narration would include the wrongful conclusion that – unlike the developers – Hoborg had to create things to be happy. "I think the narrative that said Hoborg had to create to be happy was really more evidence of Willie Trombone's naiveté than it was of a deeper truth of our worldview", Mark clarifies. "Willie was a famously unreliable narrator. He was telling eyewitness accounts of what had happened, but it was slanted by his ability to comprehend it."

A subsequent creation of Doug's proved to be less innocent, in fact, the only aspect of its giant crab-like design that lacked horror was its name: the 'Weasel.' "I think that it was called the 'Weasel' *before* Terry Tailor composed its musical theme, which was a musical quote of '*Pop Goes The*

Claymation Classics

More memorable games set in clay universes

Trog



■ It would be a bit unfair to call *Trog* a claymation *Pac-Man*, but Namco's coin-op certainly informs Midway's dinosaurs and cavemen maze game. Besides its clay model sprites, *Trog* further distinguishes itself from its inspiration with cartoon violence and a range of power-ups, but its greatest deviation is its multiplayer mode.

Clayfighter



■ Released as a kid-friendly claymation alternative to *Street Fighter II* and *Mortal Kombat*, *Clayfighter* showcases a roster of bizarre fighters including an evil snowman and an Elvis impersonator called Blue Suede Goo. Beyond its novelty value, *Clayfighter* impresses by equipping its malleable combatants with usefully deformed moves.

Clayfighter 2: Judgement Clay



■ As well as being faster and much more intense, *Clayfighter*'s sequel turns the already odd nature of the series up a notch by introducing a human banana and a giant octopus as fresh fighters. *Clayfighter 2* improves on its predecessor by adding evil versions of each character as bosses, nicer-looking sprites and 3D backdrops.

Clayfighter 63 1/3



■ The N64 follow-up to the SNES originals, *Clayfighter 63 1/3* combines strange new opponents with characters from the first two games and heroes from earlier Interplay titles like *Earthworm Jim*. Nintendo's 64-bit system allows for more convincingly rendered fighters to use far more sophisticated moves in a series of 3D arenas.

Platypus



■ To look at, you would imagine *Platypus* was a love letter to *Gradius*, but its main influence is actually 1942. Regardless, *Platypus* is a faithful recreation of Eighties side-scrolling shooters using visuals made entirely from photos of clay models. The game's emphasis is on increasingly over the top foes and weapon upgrades.

Neverhood Chronicles

The gaming legacy spawned by The Neverhood

Klaymen Klaymen – Neverhood No Nazo



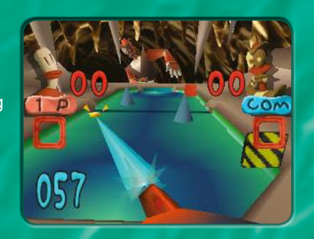
■ A Japan-only PlayStation port of *The Neverhood*, but it's worth highlighting how *Klaymen Klaymen* differs from the original. As well as speeding up the first-person sections and most of the side-on stages, *Klaymen Klaymen* gives hints on its first level and all but dispenses with the Hall Of Records.

Skullmonkeys



■ *Skullmonkeys*' narrative picks up where *The Neverhood* left off, but its overall design owes more to *Aladdin* and the *Earthworm Jim* games, which many of its developers worked on previously. The PlayStation platformer stands out from its 16-bit predecessors by filling its imaginative claymation world with exploding monkeys and 32-bit effects.

Klaymen Gun-Hockey



■ The Neverhood, Inc had nothing to do with this budget Japan-exclusive air hockey title for kids, and besides featuring *Neverhood* characters, the polygon-model-based *Klaymen Gun-Hockey* shares little with the other games in the series. It's not bad for what it is, but it should never have been allowed to be a *Neverhood* title.

BoomBots



■ After following up a point-and-click with a platformer, Neverhood, Inc produced this robots vs alien cats brawler. Although not technically a *Neverhood* game, *BoomBots* does include Klaymen as an unlockable fighter. The challenging polygon-powered arena fighter features range weapons and hilarious claymation cutscenes.

Armikrog



■ Instead of Klaymen, *Armikrog* features spaceman Tommynaut and his dog Beak-Beak, but it's a follow-up to *The Neverhood* in every other way. Designed by former Neverhood, Inc developers in 2015, the Kickstarter-funded claymation title combines cutscenes with beautifully rendered point-and-click puzzles and challenges.

> "We were trying to come up with puzzles that were varied in what part of the brain they taxed but also something we could execute quickly"
>
> Mark Lorenzen

▶ *Weasel,*" Mark muses. "When Doug designs characters, I think the name is not the first step; it's the second one. The alliteration and the word pictures of the name are as part of the character as the lines that define their form. I think the Weasel and the musical jack-in-the-box were probably conceived all as one moment, so that might be where the name Weasel came from."

In addition to character development, *The Neverhood* team also found time to produce elaborate props to help pitch its project to a prestigious film production company that was moving into games. "We made a wordless illustrated book for the express purpose of pitching," Mark remembers. "And, as well, we made posters and little statues, because we wanted to communicate what the aesthetic was; the uniqueness and the novelty of it. Steven Spielberg gave it a green light immediately, and from that point we were expecting to be beholden to our publisher, but instead DreamWorks gave us a great amount of creative and operational agency."

That freedom allowed the designers to invent an new form of videogame based around digitally capturing images of clay models and transforming those images into sprites and levels. "In its actual execution it was still sprites and pixels," Mark argues. "It was just that instead of drawing out those pixels in Deluxe Paint we were using first-

THE NEVERHOOD 101

■ In gameplay terms, *The Neverhood* is a point-and-click adventure that tasks players with solving puzzles and using lateral thinking to complete logistical challenges, but the game's beautiful clay universe and engrossing FMV narrative make the journey through the Neverhood an entirely immersive experience.



» [PC] The surrealist environments meshed well with *The Neverhood*'s off-kilter tone.



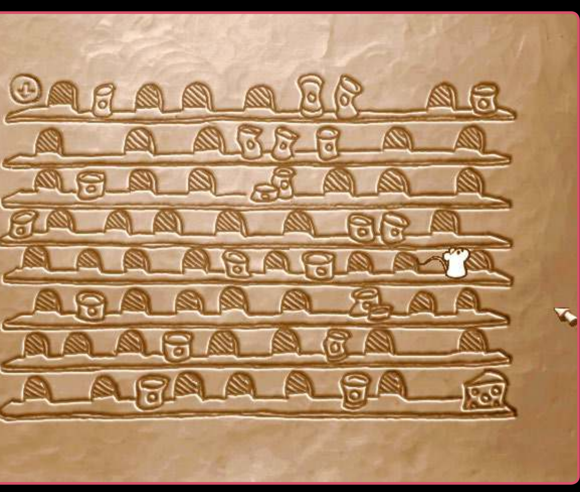
» [PC] A crucial disk lies at the end of *The Neverhood*'s 39-screen-long journey through the Hall Of Records.

generation digital cameras and then writing our own software to create a pipeline for those assets to become sprites. The whole game was first made in pencil drawings, which were scanned, and then once everything was playable in the drawings we would use them as the guide for the photography."

Having created the visuals for the game, there remained the matter of making them interactive. "We had to make an AI that would interpret the location of a 2D click and then build a sequence of events that would smoothly animate from what the character was doing, and where they were, to cleanly interact with where they were headed," Mark recalls. "It was complicated, because any click could occur at any time with the character at any place doing anything."

But while *The Neverhood*'s coding was in hand, by the midway point of its development, time constraints necessitated a fresh mechanic. "One idea that came in the middle of the production was the teleport pod," Mark divulges. "The ability to just pop out of one place and show up in another one was a shortcut to a more involved feature that we had conceived. The original game in storyboard form was probably 50 per cent bigger than what we ended up making, so we had to heal some wounds from making some cuts."

Disappointing omissions aside, those gameplay elements in *The Neverhood*'s original design that its developers *did* have time to realise included a number of interconnected logistical challenges.



» [PC] *The Neverhood*'s mouse puzzle stumps a lot of players, but it's painfully easy to solve once you know what to look out for.



» [PC] An illuminated equation provides the final clue required to solve this locked door puzzle.

"Aiming and unlocking the cannon in order to move the teddy bear was required in order to get the cannon aimed and then get Big Robot Bill moved to an open spot," Mark recollects, "but even leading to that you had a chain of events that were required. That's something that was just conceived by: 'You have to do a and b to get c.' But it wasn't systematic; it was done narratively. Each step produced its own motivation, because when you did all of those things you didn't know that ultimately you were going to be disabling a giant robot, climbing in and switching it to 'good'."

Additionally, puzzles devised as a result of a division of labour complemented the game's physical challenges. "Doug would provide the scenario and the aesthetic, and then I would provide the cerebral element," Mark reflects. "We were trying to come up with puzzles that were varied in what part of the brain they taxed but also something we could execute quickly. In some cases the solution was quite obvious. It was just a matter of whether you were able to clear your mind enough to see it."

A third objective came in the form of collecting video player disks, which as Mark explains also acted as milestones. "The disks were the primary inventory element, and knowing that there were 20 of them was a way of letting the player take a sounding of how deep into the game they had reached. Although it became somewhat of a grind to get the last few because they were harder to find and generally took longer trips to encounter. But with the last video Willie gave you the third key, which you needed to finally enter Klogg's castle."

Antagonist Klogg's castle was depicted in one of a series of impressive FMV cutscenes, which, as with most other aspects of *The Neverhood*, were praised by critics on its release – its fortunes at retail were slightly less impressive, however. "I don't



» [PC] *The Neverhood*'s finale hinges on a decision to take Hoborg's crown or give it back to him.

think that it quite met its potential," Mark admits. "One weird thing was that the game was given a 17-and-up rating. I think that was very off-putting because our primary market was retail. Ultimately, we found that the justification was a video that we included where one of our team vomited."

In the months following *The Neverhood*'s release, Mark realised a second regret related to the time taken to complete one particular level. "The design of the Hall Of Records was so that you could walk down it and survey the chronicles on the wall," he says. "The original design had more clues coming from the reading than we ended up with. After releasing the game, I had a little bit of regret with how those elements that we cut ended up making the hall feel kind of punishing without a reward."

But far from informing Mark's current thoughts on *The Neverhood*, these reservations don't even warrant a mention in his appraisal of the innovative adventure. "I'm very proud of it," Mark states, "not only of the game but also of the way that we came together and performed an amazing miracle to get that thing from concept to release in 11 months. There was no game engine; we built it from scratch. We invented a medium that had never even been conceived before, we made an asset pipeline, we designed a game and we executed it – all photographically; the look and the feel from nothing. So the feeling I'm left with is pride." *

MEGA CAT STUDIOS

MAKING NEW GAMES ON OLD SYSTEMS

IN A WORLD OF DIGITAL DOWNLOADS, COLLECTIONS HAVE BECOME INCORPOREAL AND OLD-SCHOOL PHYSICAL MEDIA IS DWINDLING. THANKFULLY THERE ARE STILL THOSE OUT THERE KEEPING THE SPIRIT ALIVE

Words by Anna Blackwell



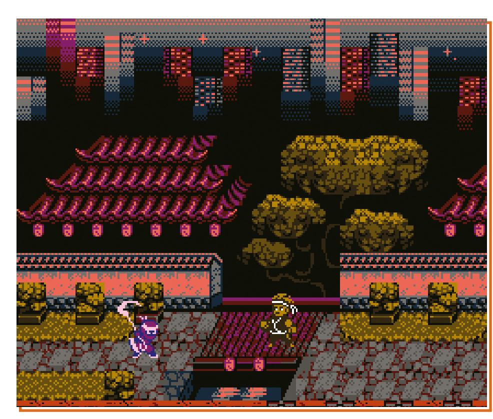
» [NES] If *Double Dragon* taught us anything its that if a weapon is lying around, use it!

Mega Cat Studios' mission statement of 'waging war on boredom' and 'supporting the retro rennaissance' should be enough grab any retro gamer's attention. The developer – which is behind games such as *Coffee Crisis* (Mega Drive/PC), *Little Medusa* (NES/PC), and *Fork Parker's Crunch Out* (SNES) – is made up of retro enthusiasts creating physical cartridges of the company's own modern games for retro consoles. It has released games on the NES, SNES and Mega Drive, as well as Steam and modern consoles, and thanks to the passionate retro community, the team shows no signs of stopping.

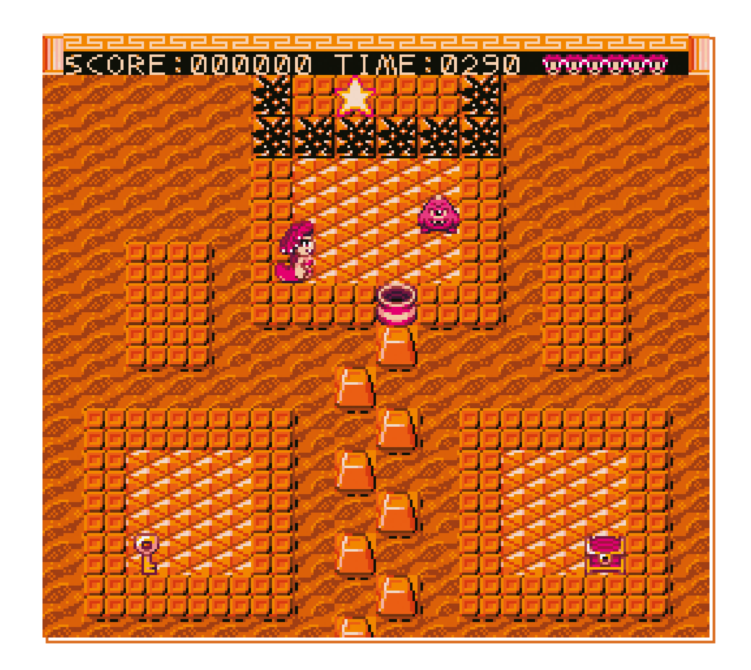
Since starting development of retro games in 2015, Mega Cat has released nine games that feature a gamut of outlandish elements – from bio-punk and death metal, to android presidents, ninjas, Greek legends and, of course, zombies. So what exactly goes into making new retro-style games for old consoles? And how do you cultivate games with the odd themes reminiscent of the Eighties and Nighties? To get some insight, we tracked down Mega Cat cofounder Zach Manko.

Creating a new, physical game for an older console isn't exactly an easy (or cheap) process. Each cartridge has to have its own custom PCB board, shell, manual and case. "All of our games are made in-house," Zach explains. "We own the cartridge injection moulds to do custom colours, and all labels and box art are developed by our team. Physical assembly can be a chore, but in a world gone digital, nothing beats the feel of a hard copy game in your hands. We do work with a partner for the limited edition versions of our games, so we can offer collector-worthy custom cartridges."

Mega Cat makes a point to ensure its games feel authentically retro and are designed to run on retro hardware. "This of course means that we have to work within the limitations of the retro systems." Zack elaborates. And perhaps the biggest limitation NES



» [NES] The detail on the trees and rooftops in the background make this particular fight a spectacle.



> “We own cartridge injection molds to do custom colours, and all labels and box art are developed by our team”
> Zach Manko

developers face in the modern age is the checking integrated chip or 'lockout chip'. Originally made so that Nintendo had full control over the NES cartridge supply, the chip has continued to be a bugbear for developers. Not everyone is confident enough to pop open their NES and start hacking bits of the circuit board off, then there's the issue that modified consoles are often sold for much more than your typical market finds, so developers have to make sure their games work on an unmodded console to hit the largest market. The chip itself isn't even a great deterrent as unlicensed cartridges can force their way past the chip with a simple voltage spike, but if you're going to the effort to make something genuine, you have to go whole hog.

The team doesn't strictly stick to old school game design, however. Where it would help the modern gamer, it add elements to keep it in line with current retro-style games – extra power-ups with more impressive visuals, for example or improved framerates and higher fidelity soundtracks. However, designing for older systems means that hardware constraints have to be accounted for. When asked about these restrictions Zack explains, "Restrictions force us to be creative in new and fun ways, and we are masters at pushing these consoles to their limits. We've actually contributed info to the development databases and communities for these systems, based on our experiences and accomplishments in making these games."

Development and production aren't the only parts that are tough when making modern retro games. Testing has to be rigorous, and Mega Cat doesn't have the luxury of being able to patch its physical games after release. Any bugs that make it onto a cartridge are there forever, just like the devs of the Eighties, Nineties and early Noughties, so the team has to spend a lot of resources on QA before even thinking about production.

Producing new games for old consoles is a niche market, so Mega Cat's games are also ▶

» [NES] Sometimes you've just got to look at your architect and ask who hurt them.

MEGA CATNIP

Releases from Mega Cat Studios that you should keep an eye out for

LITTLE MEDUSA

SNES/NES/GENESIS/PC

■ A spiritual successor to *Kickle Cubicle* with updated graphics and Greek mythology wrapping. You play as the Gorgon Artemiza and must petrify enemies to bridge gaps and beat bosses. It's not light on content, either, with five worlds and a secret bonus world if you can beat the game fast enough.



ALMOST HERO 2

NES

■ The sequel to the co-op ninja beat-'em-up *Almost Hero*. You play as one of two ninja hopefuls trying to save their online bonsai business. *Almost Hero 2* is currently still in development, but it looks to be keeping with the feel of the original albeit with better looking environments and crisper sprites.

COFFEE CRISIS

GENESIS/MEGA DRIVE/PC

■ An arcade-style brawler featuring 12 original tracks by bands including Psychostick, Terrorizer, Lords of the Trident and Nile – also with appearances from influencers Metal Jesus Rocks and Alpha Omega Sin. Sadly, good music and mediocre graphics don't do much to cover the standard-fare combat or weak plot.



LETHAL WEDDING

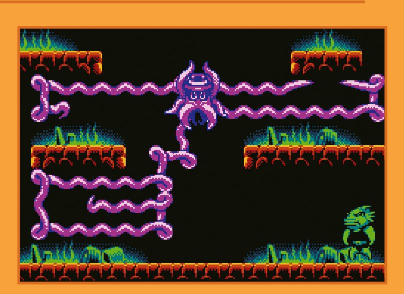
GENESIS

■ While still in development what we've seen looks intriguing. *Lethal Wedding* is a top-down twin-stick shooter with some nice pixel art. The overly risqué lady sprites we could do without, though – just because it's a retro-style game doesn't mean you should embrace *everything* from the old days.

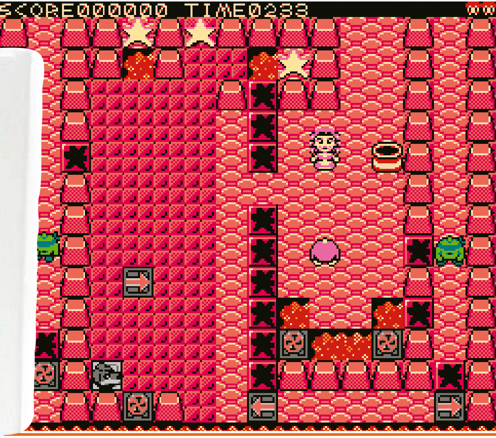
IN COD WE TRUST

NES

■ Another title that's due out this later on year, *In Cod We Trust* is a Saturday morning cartoon-inspired fish fighting platformer with customisable equipment, challenging levels, and eight-direction scrolling. The art is attractive enough to draw you in, lets just hope it doesn't smell as bad as its namesake.







» [NES] *Little Medusa* riffs off the NES game, *Kickle Cubicle*, but adds a distinct Ancient Greek theme.

» A special NES collector's edition of *Little Medusa*.



» Zach Manko is the cofounder of Mega Cat Studios.

» [NES] In *Cod We Trust* is an upcoming release. Hopefully it plays as good as it puns.

▶ released on Steam, PS4, and Xbox One, but game development isn't the big money maker that some may think it is. Originally, Mega Cat Studios plied its trade refurbishing old consoles. "We started by selling modified Game Boys, Backlit Game Boy Advances, and Game Boy Colors," Zach says. At this point Mega Cat had 11 people working at the company, and actually had more hands on deck than games developers. After plugging away on console mods for a time, the team started moving into game development and became a developer-for-hire and used that contract work to form the backbone of the studio. Now with a core team of around 20 members, and nearly double that with subcontractors and freelancers, Mega Cat is able to juggle projects as necessary. And as it has built itself up, the team has been increasingly able to pursue its passion more and more.

Building upon the past but keeping an eye on the future is the kind of mentality that breathes new life into retro gaming, and Mega Cat is not afraid bridging the gap. The studio's newest game *Fork Parker's Crunch Out* (SNES) is a game about indie game publisher Devolver Digital's fictional corrupt CFO and the questionable motivational tactics he uses to keep his indie dev minions on task. And this is a pretty big deal as this marks the first time Devolver Digital has involved itself in retro games. The game itself is being developed with the intention of giving 100 per cent of the profits to Take-This, a US charity dedicated to raising awareness about mental health issues. And if it sells well then who knows, perhaps this might mark a step forward for the legitimacy of the retro scene and we may see more publishers looking into physical retro-style releases that work on older systems.

Developing a game for Take-This isn't Mega Cat's first philanthropic endeavour. "We aim to do a few philanthropic projects each year," Zach pledges. The company's first Kickstarter title, a neo-rogue brawler *Coffee Crisis* (Mega Drive) was made pro-bono to promote a niche heavy metal-themed coffee store. Before that it made *Germ Squashers* for the NES which was made to support the Children's Miracle Network. Its most recent philanthropic creation, the NES game *Sitten Kitten* is described as "the first and only game designed for the feline gamer" was created in partnership with rescue shelters and adoption clinics to find homes for neglected and abused cats.



While there might not be as much money in the modern retro market, there is at least a market for 'artisanal cartridges'. And for the serious collector, Mega Cat works closely with Rose Coloured Gaming to make custom cartridges. The limited edition run for *Log Jammers* (NES) actually has a wooden shell while the upcoming *Little Medusa* has been made with multiple layers of custom cut acrylic and features intricate engraving and metallic gold inlays.

Mega Cat has also played the role of publisher to small studios and solo devs and helped games like *Dushlan* (NES) and *Mega Marble World* (Mega Drive) get a physical release. And, as is to be expected from any philanthropic retro enthusiast, it buys and repair old consoles. "I want to rescue every Genesis I come by," Zach smiles. "We repair and refurbish them and we do sell them on our website, but we pick them up at every convention we go to." Of course, reselling consoles that are no longer manufactured isn't going to work in the long term so Mega Cat also offers console bundles; the Hyperkin RetroN 1 and RetroDuo Portable Handheld with collector quality boxes, custom controllers, and a selection of games to boot.

Going forward, Zach says Mega Cat plans to assist the retro scene by continuing to make games and sharing what it learn with the wider game development community. The team plans to keep working alongside



» [SNES] In *Crunch Out*, game devs are miserable but the money-hungry Fork Parker doesn't care.

> "We started by selling modified Game Boys, Backlit Game Boy Advances, and Game Boy Colors"
> Zach Manko



» Mega Cat's partnership with Rose Coloured Gaming has produced some unique cartridge designs using acrylic and wood.

other retro and indie developers, helping the small-scale developers find somewhere to publish, and doing what it can for philanthropic causes.

On the helping other indies side of thing, a great example is the studio's NES title, *Expedition*, which is a NES port of the Android and iOS app for the card-based RPG of the same name by Fabricate.io. Taking the core design and wrapping it with classic 8-bit fantasy art and music changes the feel of the *Expedition* card game which it also ships with. And to sweeten the deal, Mega Cat's NES version has exclusive quests.

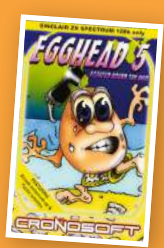
Mega Cat Studios is not alone in its endeavours, other developers like FoxBot, John Lester, and Piko Interactive have been launching new SNES and NES projects via crowdfunding. And it's not just games that are coming out of the retro scene, every year there is some new hardware that pushes the envelope on what can be achieved. Whether that's new, easier-to-use homebrew kits that hobbyists can use, or even officially licensed consoles like the C64 Mini and the Nintendo Classic Mini range. Mega Cat offers useful tools like its SNES/Genesis 240p test suite cartridges which allow players to test and calibrate visual aspects like colour bleed check, PLUGE, gray ramp, and overscan. As well as a Mega Drive test cartridge which allows players to test and troubleshoot any part of the console or peripherals to see what could be causing console faults.

As these retro developers continue to support one another and explore the limits of what can be done with the old tech, it's not too far fetched to think we may see some amazing retro games in the coming years. With more and more nostalgic entrepreneurs turning their attentions to the past to stand out from the increasingly saturated modern indie market, it's like living in the golden age of cartridges all over again. *

KEEPING THE FIRE BURNING

More companies that are helping to produce new experiences on old systems

CRONOSOFT



■ Started in 2002 this UK based nonprofit publishing house produces cassette games for the ZX Spectrum, Commodore 64, Vic-20, Amstrad, and Dragon-32. Its games are very cheap, usually around £5, and any profits the company makes goes to paying the game creators or improving the service. You've got to admire the dedication of those involved.

PSYTRONIK

■ Focusing on retro computer systems such as the Commodore 64, Amstrad CPC, VIC-20 and ZX Spectrum, Psytronik has built up a catalogue of over 50 games across various platforms. Publishing since 1993, it is one of the oldest retro publishers around, and it has games available on tape, CD, floppy disk or as downloads from Itch.io.

RETRO GAMES LTD



■ A trio of console designers that got together to create the C64 Mini and have managed to get the licences for 64 classic titles with more to come. But in the meantime you can load C64 games through a USB drive for an authentic emulation experience.

RETROTAINMENT GAMES



■ A Pittsburgh, PA retro developer that also create its own physical NES cartridges for its *Haunted* series. Like Mega Cat, it releases games on Steam in order to reach a wider audience. Check out *Haunted: Halloween '85* or *Haunted: Halloween '86* (*Curse Of Possum Hollow*) for some retro-style beat-'em-up action.

INFINITE NES LIVES



■ The biggest hurdle in NES development is the lockout chip built into the cartridges. Thankfully Infinite NES Lives is working to distribute working blank cartridges to developers. Its custom consoles, controllers and games it has published take gamers right back to the Eighties. It also publishes collections of NES homebrew titles.

Minority Report

INTERESTING GAMES YOU'VE NEVER PLAYED

GAME GEAR

Sega's battery-hungry handheld doesn't get too much love these days, but there are actually plenty of worthwhile games to play – they just didn't always reach our shores. Nick Thorpe checks out some intriguing imports…

KISHIN DOUJI ZENKI

■ DEVELOPER: **SEGA** ■ YEAR: **1995**

■ **In the mid-Nineties, Sega seemed intent on refocusing the Game Gear's software line-up to appeal to kids, acquiring the rights to produce games based on a number of popular anime licences – *Yu Yu Hakusho, Magic Knight Rayearth, Saint Tail, Doraemon* and more.** *Kishin Douji Zenki* was part of this licensing drive, and while you might not have heard of it, its popularity in mid-Nineties Japan was unquestionable – the original 12-volume manga spawned a 51-episode TV anime adaptation, plus a short straight-to-video animated film and five videogames.

The team assembled for this adaptation was quite a talented one. Producer Katsuhiro Hasegawa was a Sega veteran whose previous work included *The GG Shinobi* and *Deep Duck Trouble*. Director Hisayoshi Yoshida had worked on *Sonic 3, Sonic & Knuckles* and *Legend Of Illusion*, and his planning partner Tadashi Ihoroi had experience on the 8-bit Sonic games *Sonic Chaos* and *Sonic Triple Trouble*. Given their experience, you won't be surprised to find that they put together a platform game to represent Zenki.

The game starts off with the titular character Zenki in his 'demon god' form, fighting in a short boss battle. This single-screen encounter gives both Zenki and his opponent life bars, and Zenki is able to select from four different attack moves – a fireball, a lightning spark, a dash and a tornado attack – by pressing the start button. After you win, you'll head off to the map to select one of the main action stages, but these boss encounters are frequent throughout the game.

In the main platform stages, you play as either a small version of Zenki, or his shrine maiden friend Chiaki. Zenki can attack enemies by curling into a ball, either when jumping or by performing a forward roll from a crouching position, while Chiaki can use her magical powers to shoot small flames or find single-use spell tags to summon lightning, wind or fire. These unique skills grant different paths through the stages, too – only Chiaki can defeat certain barrier enemies, while only Zenki is capable of breaking blocks from above or below. What's nice about the platform stages is that they're not just graphically attractive, but varied and interesting to play. Each has unique gimmicks – destructible floors, moving bars to hang from, and even alternative exits leading to new stages. Some stages are the usual left-to-right affairs, while others see you moving mostly vertically.

The game's presentation is top notch, too. The graphics are good for the Game Gear, and plenty of story cutscenes add to the atmosphere. The soundtrack by Saori Kobayashi is also good considering the limitations of the system's audio hardware. It's not the most inventive of games, and if you're a Game Gear fan you probably have a few good platformers already. However, it's an exclusive game for the system and a high quality one at that – not something you'll come across too easily on the Game Gear, so it's worth the £15-£25 it sells for.

» [Game Gear] Boss fights are the only stages to feature Zenki in his 'demon god' form, the most combat-oriented character in the game.



» [Game Gear] The animation in *Kishin Douji Zenki* is rather nice – just look at the detail as Chiaki drops in from above.

IF YOU LIKE THIS TRY...

KISHIN DOUJI ZENKI FX: VAJURA FIGHT

PC-FX



■ Renowned as one of the best games for the ill-fated system, this take on the Zenki story has a far greater focus on combat, with short beat-'em-up sections and lots of bosses to fight. The production values and sprite work are amazing, but it fetches sky-high prices.

KISHIN DOUJI ZENKI: BATTLE RAIDEN

SNES



■ This *Zenki* game features more combat moves than the Game Gear game, and much more in the way of platforming than the PC-FX game. It's a pretty standard action platformer on a format not short of them, but it's worth playing just for the sublime background graphics.

SHINOBI II: THE SILENT FURY

GAME GEAR



■ If you're just looking for a really good Game Gear platform game, it's hard to go wrong with this one. The first four stages each hide a new ninja with different coloured outfits and abilities, and can be chosen in any order, before a fifth and final stage is unlocked. Yuzo Koshiro's soundtrack is ace, too.

IN DEPTH

A GAME OF TAG

■ This icon shows the current spell tag that Chiaki is carrying – in this case, lightning. It'll be useful if we encounter any overwhelming attacks, or barrier enemies.

DA BOMB

■ This floating orb happens to be a bomb – after a while it'll start flashing before detonating and damaging you. However, it can also be used as a platform.

LIGHT IT UP

■ Chiaki's standard flame attack actually emanates horizontally from the palm of her hand, explaining the slightly odd pose she's adopted in this screenshot.

USEFUL ENEMIES

■ Our baddie here happens to be making the bomb float by blowing it upwards. If we kill it, the bomb will drop and destroy the ground below, opening up a new route.



NINKUU GAIDEN: HIROYUKI DAIKATSUGEKI

■ PUBLISHER: **SEGA** ■ YEAR: **1995**

■ ***Ninkuu*** **was quite a popular franchise back in the mid-Nineties – not only did the series jump from manga to anime and even videogames, but the games were popular enough to generate this spin-off.** Sensing the potential to revive a classic game design, Sega cast the main character Fuusuke's pet penguin Hiroyuki in a game that bears more than a passing resemblance to the old arcade hit *Pengo*. You still walk around a maze of blocks, kicking them at enemies in an attempt to crush them, and even the diamond blocks and associated bonuses are back. But this time there are more enemies with new behaviours, bumper blocks for moving ice to bounce off of, and instead of the wall kick Hiroyuki is able to stun enemies with his terrible flatulence. (Yes, really.)

There's a bit more to it than just that, though. What really elevates the game above *Pengo* is the additional stage types – the new puzzle stages require you to arrange ice blocks into a predetermined pattern, and each set of stages concludes with a boss battle. These are particularly dangerous, as the supply of kickable blocks are replenished throughout the fight in a deadly fashion – they're dropped in from above, potentially squashing poor *Hiroyuki*. If you happen to be able to read Japanese, there's also a story to follow.

Ninkuu Gaiden isn't just a more compelling game than the original Game Gear conversion of *Pengo*, it might actually be the best take on the game overall – and that's including the Mega Drive version, which sells for many times the price of this overlooked gem. The only downside is that there's no more *Popcorn* theme, but we think that's a pretty small price to pay.



» [Game Gear] All of the ice blocks must be placed in the marked 4x4 area, which requires sensible sequencing.

» [Game Gear] Hiroyuki has achieved his goal here, squashing a baddie between two ice blocks.

MORE GAMES TO PLAY



» AA HARIMANADA

■ DEVELOPER: **SEGA**
■ YEAR: **1993**

■ If you're bored of *Mortal Kombat II* and *Fatal Fury Special*, this sumo game offers a different take on fighting that proves to be pretty compelling. The big thing here is that you can lose with a full life bar – as well as being knocked out by palm strikes and head-first charges, your opponent can also push you out of the ring and throw you to the mat. It's a tad easy once you understand it, but well worth investigating.



» BERLIN NO KABE

■ DEVELOPER: **KANEKO**
■ YEAR: **1991**

■ This arcade game, known outside Japan as The Berlin Wall, has largely been forgotten – perhaps because this Japan-only release was the only home conversion it received. It's a rather cute single-screen platformer in which your goal is to trap enemies by knocking out floor blocks, then bop them with your hammer to get rid of them. There's even link cable support, for those occasions when you find fellow Game Gear players.



» BISHOUJO SENSHI SAILOR MOON S

■ DEVELOPER: **S-PLAN**
■ YEAR: **1995**

■ Basing a platform beat-'em-up on this anime series was a good call, as the licence is perfect for this purpose. Combat and platforming are simple, with the former resembling *Kung Fu Master* with a few extra moves, but the game is attractive and minigames are present to break up the action. The lack of difficulty is unfortunate, but fans of the series will likely have a good time with it regardless.



» DUNK KIDS

■ DEVELOPER: **SEGA**
■ YEAR: **1994**

■ This two-on-two street basketball game was actually endorsed by the *All Japan Street Basketball Association*, an organisation we'd never heard of before. It's prettier than the other basketball games on the system, with some well animated cartoon players doing their thing on the half court. It dunks on *NBA Action* all day long and is just as much fun as *NBA Jam* for the Game Gear, so see if your skills cut it in the streets.

BUSTER BALL

■ PUBLISHER: RIVERHILLSOFT ■ YEAR: 1992

■ For some reason, *Speedball 2* never made the jump from Master System to Game Gear, meaning that Sega fans on the go had to look elsewhere for their fix of future sports action (or just buy a Master Gear converter, we suppose). While this alternative doesn't quite match up to the Bitmap Brothers' classic, it's not too bad. The aim of the game is familiar, as you need to take a ball and shoot it into the goal, which lies at the end of a pitch strewn with bumpers. Your robots can tackle opposing robots to steal the ball, and dealing enough damage will temporarily disable them.

However, there are quite a few differences on offer here. For a start, the pitch is divided into different sectors by impassable electrical barriers, so the ball must be shot over those. Then there are the gimmicks like pitch areas that will speed up or slow down your robotic players, which change location depending on which of the six stadiums you choose to play in. Lastly, scoring is determined by how long you charge your shot before releasing it towards goal.

The major problem with this game is that the standard time limit is definitely too long, so you'll want to reduce it to avoid boredom setting in. If you do that, this should be a fun and frantic game – and if you can blackmail a Game Gear-owning friend into buying a copy, you can even play it together.



» [Game Gear] Just past the area barrier, those red and blue areas will slow you down and speed you up respectively.

» [Game Gear] The zone containing the goal is the most chaotic area of any pitch thanks to a surplus of bumpers.

RETRO STINKER

» KENYUU DENSETSU YAIBA

■ SEGA ■ 1994

■ This sword-swinging platformer is just too frustrating, thanks to enemies suddenly teleporting into play and a lack of post-hit invincibility.



» FRAY: SHUGYOU HEN

■ DEVELOPER: MICRO CABIN
■ YEAR: 1991

■ If you're familiar with the *Xak* series of Japanese RPGs, you'll know Fray as a trainee sorceress. This action spin-off pits you against enemies in a top-down world with forced vertical scrolling. Unlike most games of this type, you'll need to jump over pits as well as keep an eye on the enemies attacking you. There's a bit of dialogue that you'll miss if you don't speak Japanese, but nothing that will ruin the game for you.



» GRIFFIN

■ DEVELOPER: TELENET JAPAN
■ YEAR: 1991

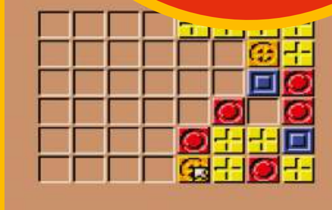
■ *Griffin* is mostly a run-and-gun in the style of *Commando*, but you're in a tank instead of on foot. The difficulty level jumps up quite quickly thanks to an irritating plane mid-boss, but the enemies are varied, the boss designs are pretty cool and you even take to the air in one stage. Sadly, it's a little bit on the short side – there are only four stages to blast through, although you do need to beat a second loop to see the proper ending.



» POPEYE BEACH VOLLEYBALL

■ DEVELOPER: TECHNOS
■ YEAR: 1994

■ This is a bit of an odd licensed game – what's the connection between the sport and the cartoon? Still, Technos did make it work, with each of Popeye's opponents having a unique skill used to disrupt play. You'd be surprised at just how difficult this game is as a result – but, thankfully, you can recruit these players to your team upon beating them, replacing Olive Oyl and the incredibly useless Mr Wimpy.

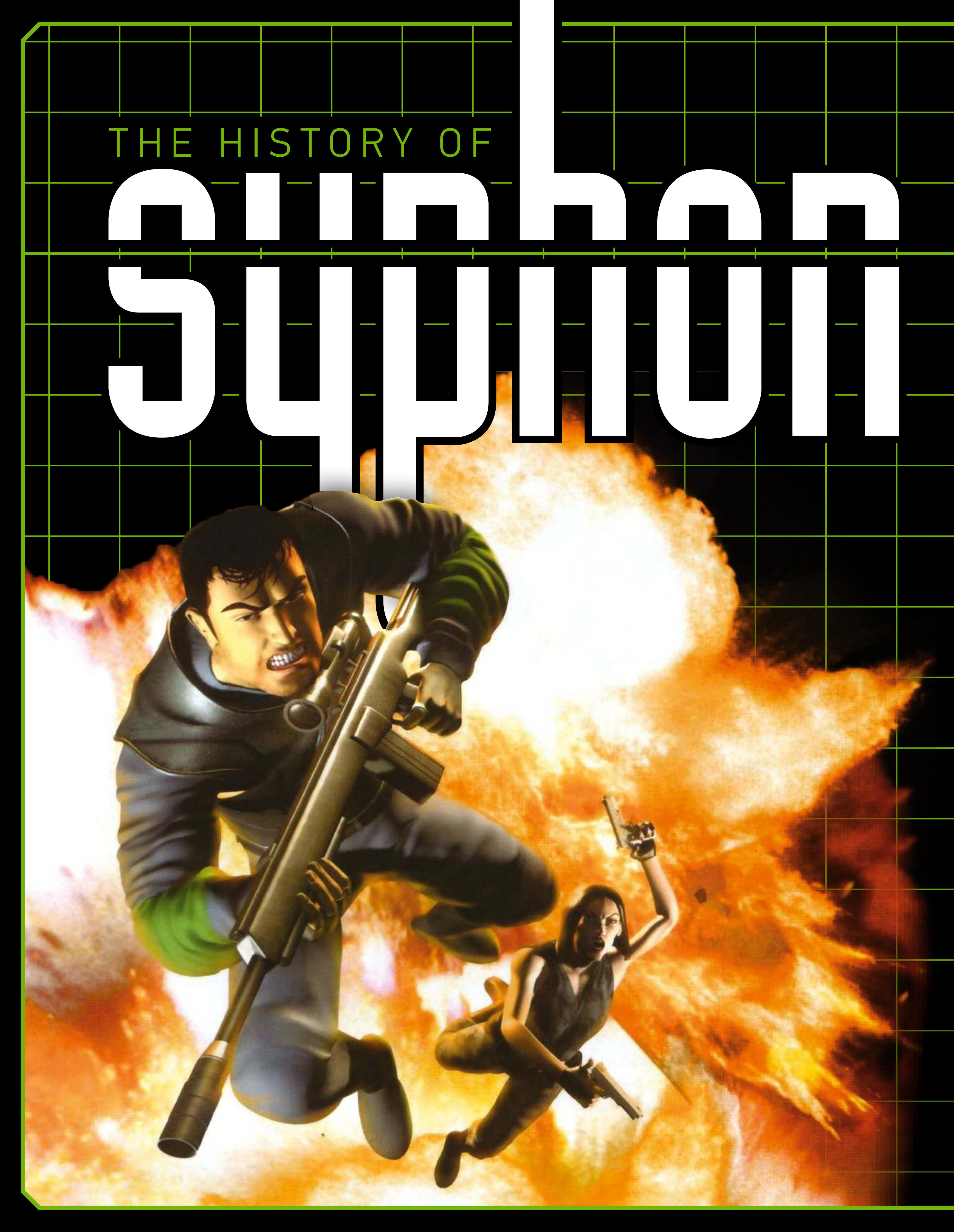


» TESSERAE

■ DEVELOPER: EUROCOM
■ YEAR: 1993

■ Tile-based puzzlers are a staple of any handheld gaming platform, and this forgotten Mac conversion is a good one. Your goal is to remove tiles from the board by flipping over them, while avoiding landing on tiles of a different colour, which creates combination tiles that are difficult to remove. Things start off simple, but with ever more complex stage shapes and increasing numbers of combination tiles, it soon gets tricky.

THE HISTORY OF syphon



Filter

HOW EIDETIC RECOVERED FROM THE LAUNCH OF BUBSY 3D TO DELIVER AN ACTION FRANCHISE THAT HELPED PUT THE PLAYSTATION, PS2 AND PSP ON GAMERS' RADARS

Words by Adam Barnes

Regardless of whether or not you're a fan of the PlayStation, it's hard to deny that the story of Sony's first console helped catapult gaming into the mainstream. *Syphon Filter* is just one slice of PlayStation history and it, too, has its own dedicated fanbase even to this day. However, the development of the franchise is a tale that, as it turns out, offers a perfect example of what it was like to develop games for Sony throughout its PlayStation and PS2 eras.

In fact, the concept started within Sony itself. This isn't a fulfilling story of inspiration borne from the mind of a developer keen to see a vision or story come to life: first, it was just a name within a corporate entity. There wasn't any concrete design attached to it, just one element that had players absorb – or syphon – the game's enemies. "I have no idea who is responsible for that original pitch," says Richard Ham, lead designer on the original game and the creative vision that set a lot of how the series would come to be known. Richard worked for Eidetic, a maligned developer that at the time had just had to suffer the release – and the scorn that came with it – of the PlayStation's *Bubsy 3D*. Richard explains that the project's name and setting had been associated to it by a producer at Sony, intended to be a pseudo sci-fi title where mankind was struggling to survive after a virus had obliterated the Earth's population. It was supposed to blend elements of fantasy with modern design in a way that PlayStation *Final Fantasy* games had, but once Eidetic had its hands on it the name '*Syphon Filter*' had shifted to a different experience. "By the time it came to us," says Richard, "the producer at Sony to who it had been assigned to was a big fan of anime and he loved *Golgo 13*, it's a comic book series. It's about an assassin-type guy, and he said, 'Okay, we'll keep this far-flung fantasy future type thing, but let's make it about being an assassin or something like that.'"

It was with that concept that Eidetic was put to work, Sony being one of the few publishers willing to "take a chance on us when pretty much no one else would". It was this initial pseudo-sci-fi hitman theme that Richard – after being appointment lead designer on the project – wanted to change first. He was eager to make a game that did something different, a title that Eidetic could redeem itself with after the failings of *Bubsy 3D*. "The first thing that I said was, 'Okay, I dig this idea, but why set it in some future tech-war-type thing? Let's set it today.' Because at this time, back in the mid-Nineties, nobody was



» [PlayStation] The ability to set someone aflame just by holding the taser down long enough will forever remain a memorable PlayStation moment.



» [PlayStation] *Syphon Filter* suffered unfair comparisons to *Metal Gear Solid*, though there were some parts that felt familiar.

CORE CHARACTERS

There's a fair amount of characters to keep track of Syphon Filter, here's a selection of the most recognisable



GABRIEL 'GABE' LOGAN

■ The primary protagonist and the name that any level of *Syphon Filter* fan ought to know. He is the franchise's Solid Snake, its Sam Fisher, and even on the rare occasions when he hasn't been playable he's been a significant part of the story.

LIAN XING



■ Logan's second-in-command and one of the few characters to have appeared across the franchise, and has even been playable at times. Fun fact: in the PS2 and PSP games, Lian Xing was voiced by the same actress that voiced *Metal Gear Solid*'s Mei Ling.

MARA ARAMOV

■ As a hired assassin, Mara Aramov is a recurring character throughout the series – and primarily as an antagonist or mid-game boss. She has on occasion assisted Logan in his missions, but only when it has benefitted her to do so.

TERESA LIPAN



■ Introduced in *Syphon Filter 2*, Teresa Lipan's assistance has since been constant throughout the series, often directing missions from afar. Her current status, however, is not confirmed, after she was injured in *Logan's Shadow*.

MAGGIE POWERS

■ You can't have an American spy story without the de facto assistance from MI6. Powers – perhaps the sister of Austin? – is the typical Brit in these stories, appearing in *Syphon Filter 3* and helping Logan in every game since.



LAWRENCE MUJARI

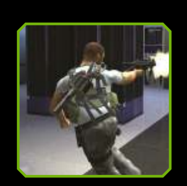


■ As a friend of Teresa, Lawrence Mujari was also introduced in *Syphon Filter 2* and has also been a big part of the franchise's various stories. As a biochemical expert, his aim is to help eradicate the Syphon Filter virus and cure infected allies.

GARY STONEMAN

■ This ex-CIA operative and trained hitman features in a number of *Syphon Filter* games beginning in *Omega Strain*, but is also playable at times, too. He's your typical US soldier, offering a hard-nosed approach to his colleagues – but a valuable intelligence gatherer.

COBRA



■ The unnamed player character of *Omega Strain* replaces Gabe Logan as the primary protagonist to help facilitate the multiplayer gameplay of the PS2 game. Cobra can be customised to the player's preference and can be male or female.

▶ doing that, back then the idea of a big triple-A project that wasn't set in some kind of fantasy of sci-fi environment just made no sense to anybody. But I pushed for it hard, because of two things I was excited about. First, I loved the movie *Assassins*, starring Antonio Banderas. And I said, let's keep all this *Golgo* thing, but look at how cool *Assassins* is, let's set it in modern times." Despite the pushback from Sony, eventually it was approved and tweaked in only one way by an exec by the name of Connie Booth – not the *Fawlty Towers* actor. "She was incredibly influential on the game in a lot of ways also," says Richard. "She was the one that said, 'You know what, I don't think people are going to want to be hitmen, let's make them spies.'"

But this only affected the story of the game, how it would be played was based around Richard's second inspiration: John Woo-style gun-fu cinema, which offered a sense of action and style that he wanted to see implemented into a videogame. "We had played *GoldenEye*, which was a revolutionary game, we had played *Tomb Raider* – that had just come out – and in fact, from a gameplay point of view, *Tomb Raider* and *GoldenEye* were my two big influences." Richard enjoyed the modern day spy setting of *GoldenEye* while the acrobatic, dual-pistol combat of *Tomb Raider* had inspired him to focus the game around this style of deft, agile combat to replicate the Hong Kong cinema that he was so keen on.

With everything set in stone from a design perspective, Eidetic had to create the content to go with it. Richard tells us of the barriers that Eidetic faced with *Syphon Filter*, of how there are so many cutscenes inside corridors or office



» [PlayStation] You can't have a spy game with a section in Moscow and not have your agent have a gunfight in a nightclub.

TOOLS OF THE TRA

An action hero is only as good as their armoury of guns and gadgets



▲ AIR TASER

■ Perhaps the most infamous weapon of them all, the comical effect of setting enemies aflame by tasing them never gets old – even if it is supposed to be used for stealth.

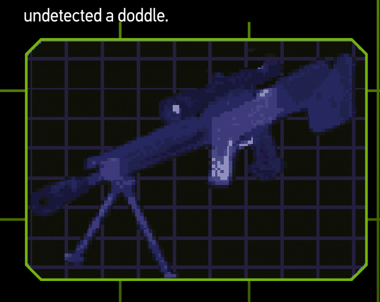


▲ 9MM

■ The basic pistol and Gabe's default weapon. It comes permanently equipped with a silencer, making it useful for stealth missions where lethality doesn't matter.

▼ SILENCED SNIPER RIFLE

■ Primarily made available in missions where stealth is a focus, the ability to detect enemies moving in the dark makes travelling about a level undetected a doddle.



▼ K3G4

■ Despite being held one-handed, this is an assault rifle. It's particularly notable for its ability to shoot through flak jackets, meaning it is no longer necessary to aim for the head.



spaces just so they could streamline their creation or how awkward motion capture sessions had led to a running animation that looked like its protagonist had soiled themselves. It's the solution to its AI that Richard is most pleased with: the "smoke and mirrors to just give the effect and feeling of being constantly under assault". Richard explains how he had to run lines of scripting splines, or "spaghetti lines" as he calls them, to spawn any number of potential threats. "We have no control over which ones will come, which lines they'll take," he adds, suggesting that this was how the AI came to be so well praised for its unpredictability.

Such were the workarounds that was a necessary part of game development on the PlayStation. Eidetic had arguably bitten off more than it could chew with the project, but with a little bit of ingenuity and a substantial amount of determination, it managed to make a standout title. But it took quite some time to get to that point, and there was a lot of pressure from Sony; according to legend, *Syphon Filter* was on the chopping block on more than one occasion. "Yes, it was," confirms Richard, "but I'll be honest, I didn't know it at the time. I had my head down, nose to the grindstone, just trying to make the game as best I could, but apparently we had problems with 989 Studios." This was a US division of Sony that made a lot of the decisions surrounding the company's published games in America, but in the case of *Syphon Filter* it seems that Richard had unknowingly saved the title from being cancelled. "Connie came to me and said, 'Richard, you're the lead designer, you've got to fly with me down to 989 Studios down in San Francisco.' We got down there, and I get taken into Kelly Flock's office, he was the president of 989 Studios, he was one of the biggest bigwigs in the industry, and I had to give him a demo of the game. I just sat down and I did what I do, when I need to be I'm an up-tempo, high-energy, cheerleader-salesman-type thing. I just pitched him the game and talked about what we have and where we're going and what our difficulties were and how we're going to solve those. And I just did my best to get him really excited about the game, and not because it was Kelly Flock. Unbeknownst to me I had the future of the company in that demo, I had no idea, nobody told me this."

Richard's sales pitch did the job, since he had saved the project and, with it, Eidetic's survival. "Apparently I came back, we got whatever it was that we needed – I don't know if we needed a budget expansion, a time expansion or just needed faith from the upper-ups – but we came back and we got our window and ultimately went ahead and shipped." *Syphon Filter* was released on PlayStation in February 1999, and was greeted with huge acclaim. Though it was met with comparisons to *Metal Gear Solid*, which had released only a handful of months prior, the slick combination of stealth, gun combat and player freedom all helped to give it a unique identity that many would come to love. But the threat of *MGS* had been a knock to the team; with only a few months left until release and a number of comparisons to Kojima's classic – some of which couldn't be changed so

> "I HAD MY HEAD DOWN, NOSE TO THE GRINDSTONE"
>
> Richard Ham

» [PlayStation] The opening to *SF2* showed just how much Eidetic had learnt from the previous game.

DE

▲ G-18

■ A machine pistol with one of the highest firerates in the series, the G-18 can obliterate weak enemies but can leave Gabe exposed as the clip of bullets doesn't last long.

▼ M16

■ The standard-issue assault rifle for games, the M16 is typically one of the first assault rifles available to the player throughout the series and is a general all-rounder weapon.

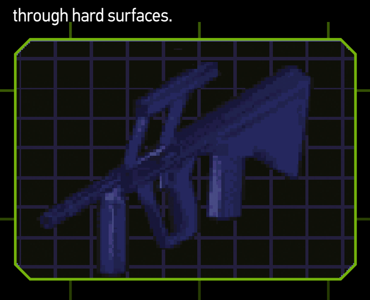


▲ M-79

■ Appearing more rarely throughout the series for obvious reasons, the grenade launcher is adept at handling large groups of enemies or even armoured vehicles.

▼ AU300

■ One of the more fantastical weapons in the series, the AU300 utilises an x-ray scope to allow the player – and the special bullets – to shoot through hard surfaces.



▼ HK-5

■ The Heckler and Koch is based on the MP5, a widely used weapon in games. As a submachine gun it's quicker than a pistol, more agile than an assault rifle but weaker over long range.





▲ SHOTGUN

■ Though it is primarily suited to short-range combat, the shotgun's ability to knock enemies to the ground is advantageous in dealing with bigger groups at medium range.

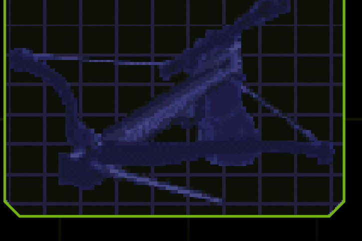


▲ GRENADES

■ They come in various forms throughout the series, but primarily they can be used aggressively with their explosive variant or during stealth with their poisonous gas type.

▼ CROSSBOW

■ Rarely seen in the franchise, the crossbow is a nonlethal weapon that is useful for debilitating targets rather than killing them – mainly useful against nonhostile targets.





SAVING THE WORLD
To say Syphon Filter takes you across the world is a bit of an understatement…
ALASKA
■ Gabe doesn't get sent to very many glamorous locations, and the start of the PSP games is no different with a series of missions set in the cold north of America.
NEW YORK CITY, NEW YORK
■ A repeat location for the franchise, taking place inside an expo centre, the Agency's biolab and even the streets of the city itself.
HELSINKI, FINLAND
■ A series of missions in the PSP game *Dark Mirror* culminates in a battle against the game's antagonist at the Aerospace Integrated Technologies HQ.
BELARUS
■ Travelling to Belarus to deal with disappearing cattle might not seem like much of an issue for Cobra, but it's all connected to the Syphon Filter virus in the long run.
CARTHAGE, MICHIGAN
■ *Omega Strain* opens with Cobra – the player character – having to deal with a terrorist threat in Carthage over a series of missions.
DUBLIN, IRELAND
■ On board the SS Lorelai, Gabe joins up with MI6 to scuttle the ship that is containing the Syphon Filter virus.
NORTH ATLANTIC SEA
■ As a callback to *SF3*, *Omega Strain* has the player visit a salvage operation on a rig out in the North Atlantic Sea.
BOSNIA
■ For a threat that initially focused on the US, the Syphon Filter virus certain seems to spread to a large number of European countries.
COLORADO
■ Starting in the Rocky Mountains then going via the interstate and a train ride across the state, Gabe's adventures in Colorado ends with a crash.
ZURICH, SWITZERLAND
■ Niculescu is the primary antagonist of *Omega Strain*, and his tower is found in Zurich. Cobra accompanies the famous Gabe Logan to prove Niculescu's connection to Syphon Filter.
PESCARA, ITALY
■ An outbreak of the Syphon Filter virus also hits this town in Italy. Players have to investigate this, but naturally end up dealing with a mob boss as well.
WASHINGTON, DC
■ The opening stage of the first game sets the tone and what to expect. Terrorists have taken over the streets of Washington, and Gabe must help combat the problem.
COSTA RICA
■ This location is the opening scene for the original game, but actually becomes playable in *Syphon Filter 3* as part of its series of flashbacks.
IQUITOS, PERU
■ South America doesn't feature too often in the series, considering that's the first place we see. All the same, Peru is where Gabe meets up with an old acquaintance.
MPUMALANGA, SOUTH AFRICA
■ While not strictly part of the *Syphon Filter* storyline, regularly appearing character Mujari has a mission here that introduces his involvement.



» [PlayStation] The variety of objectives available in *Syphon Filter 3* meant a much broader range of missions.

» [PlayStation] *Syphon Filter 3* had some cool additions – like a weapon that can shoot through solid objects.

late in development – Eidetic was feeling the pressure. "I cannot stress just how crushing *Metal Gear Solid* was. When we all saw that at that E3, we all thought that history was going to repeat itself [with *Bubsy 3D*]. Those last months, they were the worst. Those were the ones when I just didn't leave the building at all." But of course all that panic and worry was for nothing: "I don't think anyone was any more surprised by how well it was received than us. We were all floored, to come in the next day and expect the worst and see that first review from IGN or GameSpot. They were just praising it to high heaven and getting everything that we wanted to do, and saying, 'Yeah, you might think it's a *Metal Gear clone*, but it's not, it's its own thing'. So it all worked out, we all took off two weeks and then right back to making *Syphon Filter 2*."

With the immediate success of the original apparent from the start, Eidetic wasn't given a moment's respite. Sony commissioned a sequel and for Richard and the team it was time to really make the most of what they had wanted to achieve with the original. "There was no time to rest," Richard says. "*Syphon Filter 2* was just us trying to fix everything that bugged us about *Syphon Filter*, which was a foolish thing to do because we didn't have time for that, man… that was a rush job." With only a year to produce a sequel, Eidetic had to cram in as much as it could, and there was a long list of things that the team wanted to fix. "John [Garvin, designer] really wanted to get the animations better," explains Richard. "In *Syphon Filter 2* the characters actually had real, polygonal noses! That was a big deal to him. And the cinematics are much more bombastic, with bridges exploding and all kinds of really cool stuff." The story in general could now be notched up a gear, as much because of Eidetic's experience in building the original as for the fact that consumer interest and Sony's confidence in the brand gave the team the encouragement it needed. For Richard, his desires lay more in the gameplay elements, where he hoped to overcome the limitations he had met with during development. "I had felt so constrained by the way that Jeff [Ross, assistant designer] and I could populate levels. If we wanted to set up any kind of cool cinematic moment [in the original game] we had to beg, borrow and steal from the programmers schedule." To alleviate this, Eidetic's CEO Marc Blank created a scripting language and taught the two designers to use it, ultimately giving them control over the game's scripted moments. "And that's why, right from the get-go, you see guys parachuting into the levels," says Richard. "We were having Mexican standoffs; we could do anything we wanted!" But the elation in Richard's voice doesn't last long. "And that was my single biggest mistake in my entire history of videogame development," he laments, adding that Mark had "given us too much power". Though Eidetic would meet its deadline of March 2000, and the sequel would match the

MEMORABLE MISSIONS

The franchise's best setpieces and bombastic moments. How many do you remember?

FLAMETHROWER FIGHT



■ This fight against Anton Girdeux was built up with a good sense of pacing, and introduced the concept of shooting a heavily armoured enemy in the back – something that is kind of a throwaway idea these days. The fight itself was challenging, though, and certainly felt unique at the time.

INCOMING CHOPPER



■ *Syphon Filter*'s battle against a helicopter might've compared with *Metal Gear Solid*'s equivalent, but it was a standout moment all the same. It was a pinnacle moment after escalating a building from a stealth mission on the ground, through to an intense mission of deactivating missiles before escaping through a silo, only to be met with this threat.

COMMANDER ASSASSINATION



■ With the added flexibility to *SF2*'s scripting language, the developers were able to create their own standout moments. As such there were quite a number of high-octane points to pick from, but this subdued puzzle which required assassinating a commander without his ally noticing provided a great thrill after figuring it out.

RUNAWAY TRAIN



■ Long before *Uncharted 2*'s exciting battle aboard a train pelting it down some mountainside tracks, *Syphon Filter 2* had already made the concept a real spectacle. The game itself is crammed with interesting, one-off events but this was perhaps one of the most impressive setpieces that had Gabe leaping from carriage to carriage, attack chopper in tow.

SUIT UP



■ The opening mission of *Syphon Filter 3* was special because it *didn't* throw players into the middle of a firefight. A suited and booted Gabe Logan simply rode an elevator to his room in a hotel, where he found his equipment ready to snipe his assassination target. It was a simple yet brilliant way of opening a spy game.

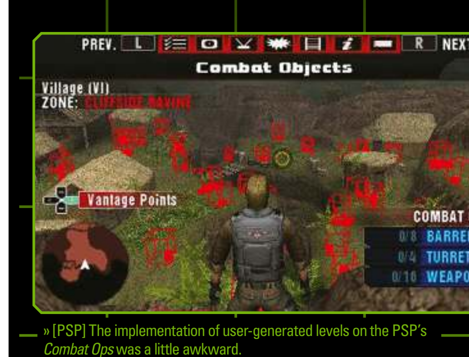
DEATH FROM ABOVE



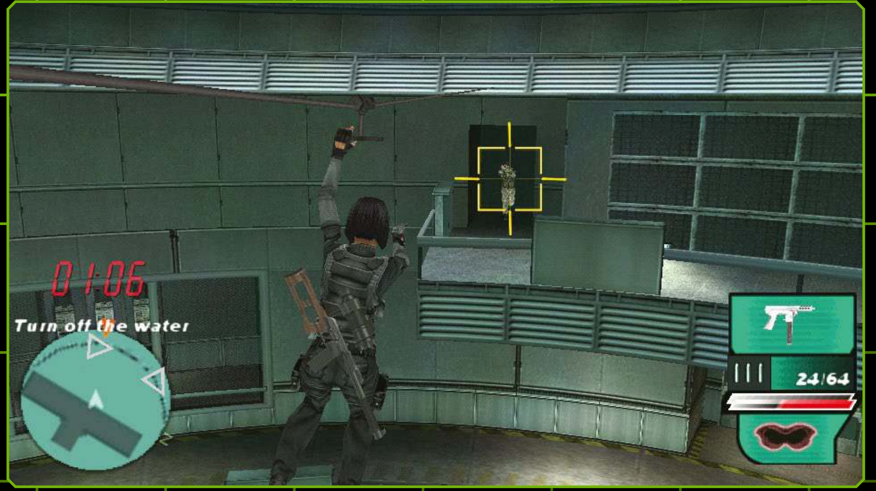
■ *Syphon Filter 2* had players start levels by parachuting in, and that felt 'spy' enough. However, the introductory mission for Mujari had him parachuting into a gold mine in much the same way, except this time the player had the freedom to choose whether to float in guns blazing, land behind an enemy and silently pick them off or find their way to the bottom.

▶ success of its predecessor, Richard regrets not having the "development maturity to realise that one of the biggest strengths of *Syphon Filter* was how unpredictable it was". All that bombast had meant that there was no downtime and, worse still, the player's movement was restricted to prevent those scripted moments from breaking. "To make sure we had all of these amazing moments but to deal with the fact that the testers just kept ripping them apart and making them unplayable, we stopped you from doing anything," says Richard. "*Syphon Filter 2* has a lot of neat moments, but it plays very on-rails."

Despite this, it was clear the fanbase was still interested, and with the PS2 on the horizon, Eidetic wanted to be "on the ground floor". The fact that Sony had bought the company later in 2000 and renamed it Sony Bend – after the small city in Oregon where the studio is based – only helped spark the developer's imagination for what could be possible on the next generation of PlayStation. "At the time everyone in the office was addicted to two things, *Diablo* and *Counter-Strike*. And just like before when I was so inspired by *Tomb Raider* and *GoldenEye*, now I was equally inspired by *Diablo* and *Counter-Strike*." Set to be called *Syphon Filter Online* and launch with the PS2, the game would have a long list of features that could've been ahead of its time. "It was going to have randomly generated real-world 3D levels," says Richard, "it was going to be a multiplayer game with drop-in, drop-out. It was going to have a meta campaign, it was going to be 100 per cent co-op. It was going to have narrative elements that would be randomly generated that would mesh in that could be scripted ahead of time. We were going to be able to shoot double-fisted. There were many things that we were going to do." The concept was underway and trucked along for quite some time, it even had a new AI in the works that would avoid the issues of *Syphon Filter 2*. "It was going well," recalls Richard, "I was as excited as I've ever been in development." The problem was, Sony – now the company's owner – felt a third PlayStation *Syphon Filter* would be worth the cost, and persuaded the studio to switch the project from PS2 to PlayStation, losing almost all of its unique elements in the process. "I was like, 'Seriously? I've come too far, you can't make me go back,'" says Richard, who didn't go back. He helped get the project started, but soon left and gave Jeff Ross a chance to step in as lead designer. The result was, understandably, a confused game that had been crowbarred in to fit the limited capabilities of the PlayStation within a development time of only eight months, resulting in a "hodge podge" that didn't have the same quality of the previous two games.



» [PSP] The implementation of user-generated levels on the PSP's *Combat Ops* was a little awkward.



» [PSP] New gameplay elements – such as ziplining – were introduced with *Dark Mirror*.

> "IT WAS MY SINGLE BIGGEST MISTAKE IN MY ENTIRE HISTORY OF VIDEOGAME DEVELOPMENT"
>
> Richard Ham



» [PS2] Though the graphics and peripheral details were impressive in *Omega Strain*, it was a technical challenge implementing the engine to allow for more open-ended gameplay.

But at this point there was already an expectation set with *Syphon Filter*. Sony had seen that it was a brand it could push, Bend was geared up to work on the PS2 and the fans already had an idea of what to expect from the name. John Garvin, the writer for the series up until this point, retained his creative control on the next project, while new designers stepped in to help bring the new generation of *Syphon Filter* to life. "For *Omega Strain*, definitely the whole point was to make it online," says Scott Youngblood, the senior designer on the project. "We invested heavily in the technology to be able to do that." The new generation of *Syphon Filter* was to become online, taking the elements that Richard had hoped for and blending them into a familiar mission structure that allowed for cooperative play over the internet. "For me it was a huge step into the multiplayer front, and that's what I found very interesting and challenging about working on that game," says Scott. "Instead of having missions that were single-player or split-screen, now we had to deal with the concept of players that all have their own PlayStation. It just got a lot more complicated in terms of the possibilities of what could go wrong."

And because the idea was so new, it was hard for the team to find the right balance. Scott explains that there was a lot of trial and error through testing, but even that wasn't enough. "Unless you put it in front of thousands of players," he adds, "you're not really going to see all the potential problems." Just to get the system to run smoothly was a challenge, in fact: "There was a lot of manhandling by the designers in terms of controlling the activation of the level geometry as well as the enemies. I wish we had more time to focus on that. So, okay we built the level, we can play it for what it is, but how can we possibly make it more fun?"

This deviation didn't necessarily play out as hoped, either. The PS2 wouldn't end up the online device that Sony had hoped for it, and *Omega Strain* suffered for it. In part its split between multiplayer and single-player had restricted its design, but since it was largely played single-player the fans were rather disappointed with the result. "It was kind of an experimental game," recalls Scott, "no one had really made anything like that on a console before so it wasn't known how well it was going to be received." After a year-and-a-half in development, *Syphon Filter: Omega Strain* launched on PS2 in May 2004 to a muted response. The problem was the "compromise" that was made to try to appeal to a wider audience, which weakened both online and offline aspects of the game. Things weren't helped much by the release of *SOCOM* two years prior, which not only set a standard for how multiplayer should work on PlayStation but also a tone for the sorts of experiences that the PS2 was about. Gone was the bombastic, action of *Syphon Filter*, now it was about slow, tactical combat. In much the way that *Bubsy 3D* had been obliterated by *Mario 64* and *Syphon Filter* had to compare itself to *Metal Gear Solid*, now the team was once again suffering the weight of expectation.



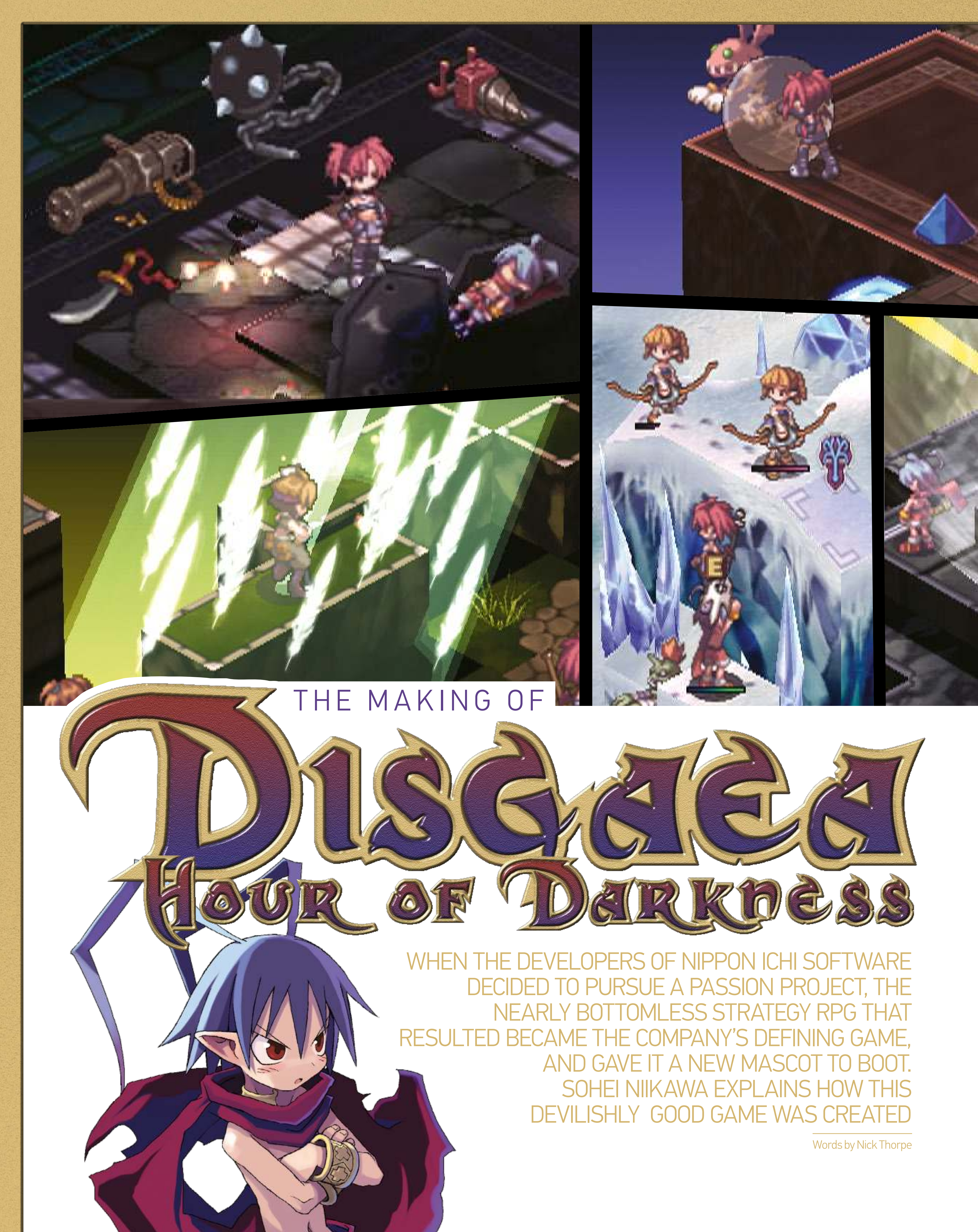
» [PSP] Surprisingly it took many years before the typical underwater level made an appearance in the franchise.

It's likely for this reason that the developer decided to go back to basics with the final two games. Rather than attempt to mix up the genre, the next game – *Dark Mirror* – would separate the single and multiplayer components completely. "We realised that doing multiplayer in that way with *Omega Strain* didn't quite work for us," explains Scott, "it didn't satisfy our goals for single-player and it didn't satisfy our goals for multiplayer. And so we took a step back and asked what could be done for a multiplayer *Syphon Filter* experience?" This meant two designers – Scott working on multiplayer and Ron Allen working on single-player – to create two separate modes. The latter looked back to the previous titles to figure out what worked, while Scott looked at what was becoming standard in the online multiplayer scene. What was different, however, was the move to PSP. "That was a decision from the studio," says Scott, "they always wanted to make content for whatever the new platform was. The biggest challenge for us was the translation to the smaller screen, some things needed to be called out more so they were more visible. But other than that it wasn't too much different for us to develop on PSP than it was for PS2." To hedge its bets, however, Sony Bend developed the game for the PSP and released it in 2006, but also ported the game to a higher resolution and larger screen for the PS2 a year later. This was similar to the next and final game in the series, *Logan's Shadow*, which was a run-of-the-mill sequel that released on PSP in 2007 alongside an online-only release also for PSP that expanded on the online components of the two 'proper' *Syphon Filter* games on handheld. This latter game, *Combat Ops*, empowered players with user-generated content, allowing for gamers to create and share their own missions. Despite the quality of the three titles, however, the brand didn't have the pulling power that many of Sony's other brands had achieved. As a result, despite the rumours and hopes of a devoted fanbase praying for a modern release of *Syphon Filter*, the franchise has remained dormant for more than a decade. Despite the bombast of the series, it has come to a stop with a fizz and not a bang. What is interesting, however, is that many original Eidetic developers still remain at Sony Bend, working on its first console title since *Omega Strain*. While zombie survival game *Days Gone* certainly looks the part, there's an air of anticipation about it – almost as if Bend has to prove itself once again. And with PlayStation classics like *Crash* and *Spyro* making waves again, a *Syphon Filter* return is entirely possible. Depending on *Day's Gone*'s performance, Bend could be in a position to deliver on that in the future. ✱



» [PS2] The move to a next generation of hardware didn't mean the game design changed all that dramatically.

» [PSP] The PSP games were well received, and they were masterfully handled by the team at Bend.



THE MAKING OF

Disgaea: Hour of Darkness

WHEN THE DEVELOPERS OF NIPPON ICHI SOFTWARE DECIDED TO PURSUE A PASSION PROJECT, THE NEARLY BOTTOMLESS STRATEGY RPG THAT RESULTED BECAME THE COMPANY'S DEFINING GAME, AND GAVE IT A NEW MASCOT TO BOOT. SOHEI NIIKAWA EXPLAINS HOW THIS DEVILISHLY GOOD GAME WAS CREATED

Words by Nick Thorpe



SPREADING DARKNESS

The original PS2 release isn't the only way to enjoy Disgaea – here are the other conversions



DISGAEA: AFTERNOON OF DARKNESS

PSP

■ Released for the PSP in 2006, this conversion of *Disgaea* offers multiplayer battles and some new optional bosses. However, the biggest addition is Etna Mode, a new story featuring Etna as the protagonist after she accidentally kills Laharl at the beginning of the game.



DISGAEA DS

DS

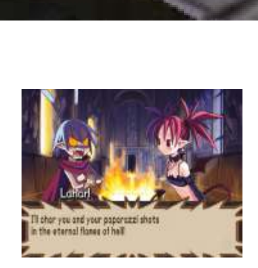
■ 2008 brought a conversion of *Disgaea* for the original Nintendo DS, boasting touchscreen controls and the additions made to the PSP version. Various cutbacks had to be made to the game's graphics and sound, including the removal of a lot of voice acting and toned down special attack animations.



DISGAEA PC

PC

■ Released in 2016, *Disgaea*'s computer debut struggled with some early bugs but patches later smoothed things out. The game's UI and textures have been updated, although the sprites haven't, and there's keyboard and mouse support. Content is otherwise broadly the same as the PSP version.



IN THE KNOW

» **DEVELOPER:** NIPPON ICHI SOFTWARE

» **PUBLISHER:** NIPPON ICHI SOFTWARE, ATLUS, KOEI , SQUARE ENIX

» **RELEASED:** 2003

» **PLATFORM:** PLAYSTATION 2

» **GENRE:** STRATEGY RPG

Being an evil overlord isn't an easy job. For a start some of your wicked minions will inevitably be loyal only to themselves. So you need to be strict in dealing our disciplinaries to your underlings, while remembering that they need to be in good shape to fight – after all, you need to repel rivals for your domain almost as frequently as do-gooders. In order to do all of that successfully, you need the ability to formulate solid battle strategies. If you're thinking, "I can handle all of that," but don't have the time for a career in politics, then you're probably the sort of person who'd love *Disgaea: Hour Of Darkness*, a cult classic strategy RPG.

Disgaea was something of a passion project for its development team. "*Disgaea* was made right around when Nippon Ichi Software was ten years old," says Sohei Niikawa, president of Nippon Ichi Software and producer of *Disgaea*. "Up until that time, the company ranged from ten to 20 people. Every year, there would be one game, and if that game didn't sell the company was at risk of going out of business. Right before we decided to make *Disgaea*, we met internally and had lots of discussions to try to decide what to make next. The result of that process was that we had no clue, we didn't know what to make. So we decided, 'Let's just make what we want to make.'" This ethos required flexibility, a need which shaped the setting of the game, too. "We thought we could do a game set in the Netherworld, with demons as the main characters, and because of this, essentially anything goes."

Though *Disgaea*'s story touches on a conflict over leadership and later war between worlds, it's a lighthearted game. "My style for writing is comedy, I like to write comedy. Whenever there's an opportunity to throw a nice joke in, I make sure to do it," says Niikawa. While the protagonist Laharl gets some good lines in, much of the game's laughs are provided by the other major characters, Etna and Flonne. "The four previous games I had written had all featured a female main character, so this was the first chance I had to work on a male ▶

MEET THE CAST

Who's who and why are they here? Find out with this primer

LAHARL

■ The son of King Krichevskoy, overlord of the Netherworld. At the start of the game, he awakes from a two-year nap to find that his position as heir is highly disputed, and sets out to reassert it.

FLONNE

■ An angel sent from Celestia to kill King Krichevskoy, only to find out that he's already dead. Flonne is a bit of a ditz and strongly believes that everyone is capable of love, including demons.

LAMINGTON

■ This high-ranked angel is the one responsible for sending Flonne on her quest to assassinate King Krichevskoy. He's calm and kind, but there may just be more to him than initially meets the eye.

CAPTAIN GORDON

■ Alongside his sidekicks Jennifer and Thursday (a robot, of course), he serves as a defender of Earth. The kids love him, but he's slow on the uptake and easily tricked, making him somewhat ineffective.



ETNA

■ A demon who serves as Laharl's vassal. She's a bit of a bully, especially towards the Prinny squad she hired, and has very questionable loyalties. She also provides delusional anime-style previews of coming chapters.

VYERS

■ This vain and dramatic demon is the early frontrunner in the race for the Netherworld's throne. Laharl has no respect for him, and refers to him exclusively as 'mid-boss' after meeting him.

VULCANUS

■ This archangel is Lamington's second in command, and rather more outspoken and loud than his boss. He's got no time for demons, and views humans as essentially sheep that angels must herd.

PRINNY

■ Sinful human souls are sewn into these peg-legged penguin bodies upon death, to toil in the Netherworld until they earn reincarnation. They're a bit lazy and fond of the word 'dood' – and they explode when thrown!

> "DURING THE MAKING OF THE GAME, THERE WAS AN ANYTHING GOES APPROACH… SEE WHAT WORKS"
> SOHEI NIIKAWA

main character," says Niikawa. "So, I wanted to have two heroines. That said, it wouldn't be interesting to have both of the heroines be demons, so I wanted one to be an angel."

The devilish vassal Etna is a favourite thanks to her bizarre 'episode preview' fantasies and general fondness for insubordination, and she's crucial to getting the game off to the right start. "It was important to create an impactful first scene that just let players know what kind of game, what kind of world this was," says Niikawa, referring to Etna's attempts to wake Laharl up with an arsenal of weapons. "Within *Disgaea*'s genre, not many games have an opening like that." Then there's Flonne, a ditzy trainee angel who has seen a little too much anime – seemingly an odd fit with the demonic cast. "If you have a setting like the Netherworld, in contrast to that you need something like heaven, or Celestia as it's called in the *Disgaea* world," explains Niikawa. "The idea of having a world filled with demons and a world filled with angels allows us to expand the plot and push it forward, and that's why Flonne exists."

Still, the breakout characters of the game were the Prinnies, who now serve as the mascot of Nippon Ichi Software. "The design was left up to the character designer, Takehito Harada," explains Niikawa. "The only thing I requested of him, after explaining the world and the kind of setting we were dealing with, was to create a mascot character. And I got a penguin… we didn't expect them to become this popular!"

Though *Disgaea*'s setting was unusual, it turned out that the game Nippon Ichi wanted to make was pretty close to what it'd already been working on. The team's previous game was *La Pucelle: Tactics*, a strategy RPG, and *Disgaea* is a game of the same genre. The usual trappings are all there – battles take place on isometric maps, and each side takes turns executing orders. Characters have a range of physical attacks and can join up in teams, or use special skills including magic attacks. There are a variety of job classes and weapons, and plenty of items to equip.

However, the 'anything goes' approach can be found in oddly amusing systems, such as throwing. Characters can lift others and throw them around, often for extra movement. "This idea was from the director," we're told. "During the making of the game, there was an anything goes approach – throw out your ideas and see what works. So we all agreed when the idea was proposed, that this would be a really fun mechanic. In other strategy RPGs you have to go tile by tile to reach your enemy, which is kind of boring. So we thought, 'Throw him over there and get to work!'"

Some of the systems used in *Disgaea* actually originate from *La Pucelle: Tactics*. These include Geo Panels, tiles on the battle map which can grant special properties to the characters standing on them, and Geo Symbols, which determine the properties given. If destroyed, Geo Symbols can change the Geo Panels on the map, damaging any character standing on them. "Previously in strategy RPGs, you either smacked the enemies to death or used magic on them. The cool thing about Geo Panels and Geo Symbols is that they create a puzzle-like element, so you're not constrained to having to beat the enemy in one particular way," says Niikawa. "I wanted to give the player that freedom."

Disgaea's other unique features can be found outside of battle. For a start, there's the Dark Assembly. You can present proposals to this group of senators, such as improving stats such as counterattack rates, which they will vote on. "The Dark Assembly in and of itself is nonsensical. With most games, there are a clear set of rules and parameters within which you must play. We were thinking what could we do to add something more interesting – maybe all these rules that were in place didn't have to be there," says Niikawa. Of



» [PS2] Not all attacks work this well from height – sometimes, you just can't reach your foe.



DEVELOPER HIGHLIGHTS

PIECES
SYSTEM: SNES
YEAR: 1994

LA PUCELLE: TACTICS (ABOVE)
SYSTEM: PLAYSTATION 2
YEAR: 2000

THE GUIDED FATE PARADOX
SYSTEM: PLAYSTATION 3
YEAR: 2013



» Sohei Niikawa rocked up to our interview wearing his trusty Prinny hat.

course dirty politics can be employed – it's possible to bribe senators and even subjugate them by way of force.

Another way you can progress is to visit the Item World to improve your equipment. "Levelling up items is fun, but just going to a menu and hearing a 'ping ping' noise is not as interesting," says Niikawa. "So the idea was, 'What if a world existed within these items?' We could allow the player to enter the world as a dungeon, and travel through that world to strengthen it. That's where that idea came from." However, Item World did conflict with getting the player through the game. "The thing is though, the Item World dungeons are randomised, so it's a new experience every time. We ran into issues where people were only playing Item World, and getting lost in that without continuing with the main story."

One aspect of the game that was uncommon at the time was its use of 2D sprites. This was the only frequently criticised aspect of the game, with reviewers remarking that visually, *Disgaea* could have been achieved on the original PlayStation. "As a company, we were well-versed in making sprites," explains Niikawa. "There's also a warmth to 2D sprites. Looking at the artwork of Mr Harada, we thought we could best express his artwork through 2D."

Disgaea was initially released in Japan in January 2003, and Nippon Ichi's goal was for the game to sell 100,000 copies – a lofty target given that *La Pucelle: Tactics* hadn't managed to hit the 50,000 mark. "Before the game came out, when we were doing test play and debug, I also participated," Niikawa recalls. "I found that I was just playing the game, just enjoying it. That was the first time in my career that I'd experienced something like that, playing the game that I'd made and seeing just



» [PS2] When you smash Geo Symbols on Geo Panels of a different colour, you can cause crazy chain reactions.

how much fun it was, and how much I wanted to keep playing it."

Despite this confidence, there was no expectation that the game would be internationally successful – indeed, it initially wasn't planned for an export release. "We thought we were just going to sell it in Japan," reveals Niikawa. "At the time, Atlus USA picked it up and released it in America – they came to us, and said, 'We'd love to do this game, please let us do it.' I remember telling the person who came to ask for the game, 'I wrote this with Japanese otaku in mind, and I have all these parodies and references to manga and anime. I don't think this is going to sell over there.'"

The North American release took place in August 2003, and Koei published a European version in May 2004. Reviews were positive, with most praising the game for its engaging battles and enormous scope for character and item development. In the end, the unplanned overseas release ended up helping Nippon Ichi to achieve its goal. "I was very worried, but the game came out and ended up selling better than it did in Japan," says Niikawa. "I was incredibly surprised by that!" In the 15 years since *Disgaea* launched, it has become Nippon Ichi's best-known series, with four main sequels (each focusing on a new cast), as well as the direct sequel *Disgaea D2* and two games in the Prinny platforming spin-off series. *Disgaea* has already been converted a few times, and a new HD remake means that you won't have to track down an older copy. So if you haven't had the pleasure, you might wish to consider playing *Disgaea* – especially as we hear there's a Prinny suit waiting for those who shun its charms. *



BACK TO THE NETHERWORLD

Sohei Niikawa discusses Disgaea's upcoming HD remake



A high definition remake of the original *Disgaea* is nearing the end of development and getting ready for release. But why remake the game, and why now? "This is the 15th anniversary of the series, so there's no better time to do it," answers Niikawa. "Also, this is an excellent opportunity to allow fans of the series to experience the game with high resolution graphics, so that it looks better than it ever has, and give them one more chance to spend some time with these characters.

"Another thing is, here we are being interviewed by Retro Gamer – this game is very old at this point," Niikawa continues. "But I feel that there are many young people, middle school students, high school students, that haven't had a chance to play this yet, and I'd love for them to have the chance to play it as well." Indeed, while the PC audience got a version of *Disgaea* a couple of years ago, the most recent console conversions of the game were released a decade ago for the PSP and DS.

What can fans look forward to in this release? "The biggest feature is that many versions of *Disgaea* have been released that added bits of content here and there, so this is an opportunity to compile all of that and make one complete version," says Niikawa, meaning you won't miss out on Etna Mode or any of the optional fights from the previous releases.

***Disgaea 1 Complete* is due for release on PlayStation 4 and Nintendo Switch on 12 October 2018.**



Virtual Boy

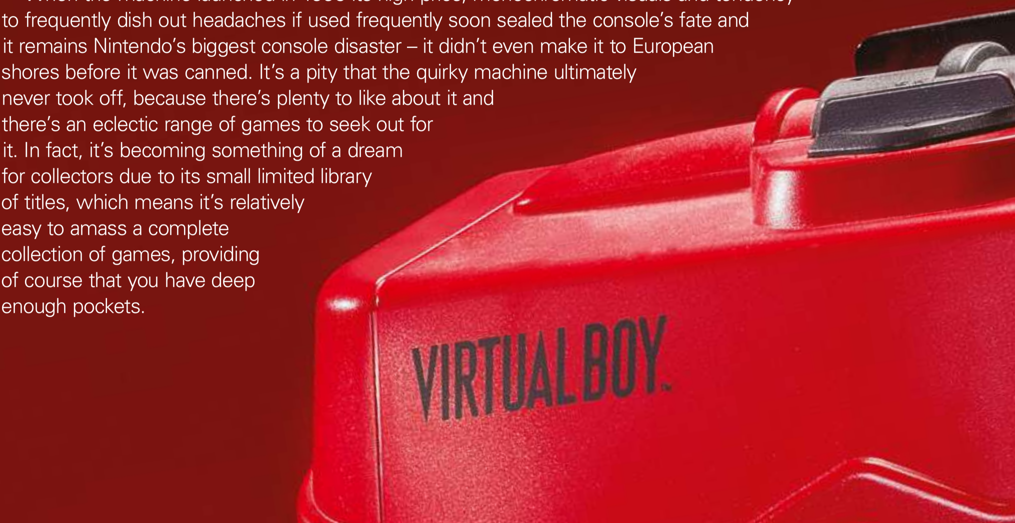
» MANUFACTURER: Nintendo **» YEAR:** 1995 **» COST:** $179.95 (launch) £120+ (today)

Despite how poorly Nintendo's Wii U sold it can still go up to console heaven knowing that it made a far better impact than the Virtual Boy. Originally known as VR32, the Virtual Boy is an infamous example of Nintendo ignoring market trends. Rather than compete in the arms race that was taking place between Sega and Sony, it instead focused on creating the world's first games machine with stereoscopic 3D graphics. This approach wouldn't last, though, as Nintendo soon realised it needed to catch up with the progress Sony's PlayStation was making and it began to divert more resources to its N64, which ended up crippling the Virtual Boy.

When the machine launched in 1995 its high price, monochromatic visuals and tendency to frequently dish out headaches if used frequently soon sealed the console's fate and it remains Nintendo's biggest console disaster – it didn't even make it to European shores before it was canned. It's a pity that the quirky machine ultimately never took off, because there's plenty to like about it and there's an eclectic range of games to seek out for it. In fact, it's becoming something of a dream for collectors due to its small limited library of titles, which means it's relatively easy to amass a complete collection of games, providing of course that you have deep enough pockets.









Virtual Boy fact

■ A colour display version was planned at one point, but Nintendo found that it was more expensive to produce and caused jumpy images during tests.

PROCESSOR: CUSTOMISED NEC V810, 32-BIT RISC PROCESSOR AT 20 MHZ

RAM: 128 KB DUAL-PORT VRAM

GRAPHICS: 384 X 224 PIXEL RESOLUTION, SLA MODEL P4 – MONOCHROMATIC RED, LED DISPLAY

AUDIO: VIRTUAL SOUND UNIT, FIVE WAVE CHANNELS, 10-BIT STEREO OUTPUT, ONE NOISE CHANNEL

MEDIA: ROM CARTRIDGE (UP TO 16MB)

POWER: SIX AA BATTERIES OR A 350MA AC ADAPTER

EDITOR'S CHOICE Virtual Boy Wario Land

This entertaining platformer is arguably the best game on the Virtual Boy and shows off the system nicely. Nintendo's game features a variety of different hats that Wario can use to navigate the well-designed stages so he can collect the level's key and move on to the next level. It makes great use of the system's 3D as well, particularly during its many boss fights.



DAVID JONES

Magic Knight became one of the most iconic heroes for the ZX Spectrum off the back of classic games such as Finders Keepers and Spellbound. Creator David Jones talks to Retro Gamer about his life in games

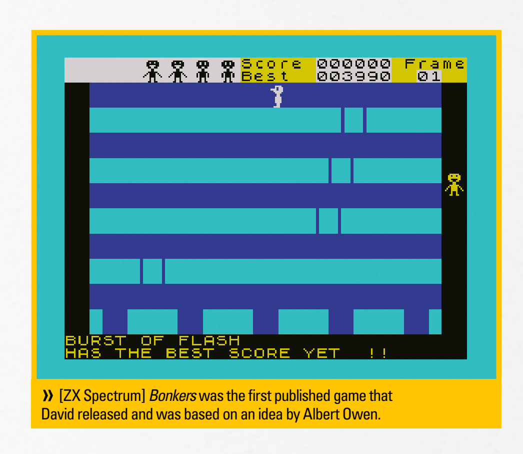
Words by Paul Davies

David Jones' foray into writing games came by chance after meeting with video rental shop owner, Albert Owen, who was looking to set up a games company. After his initial release of *Bonkers* and then some utilities programs for the ZX Spectrum, David followed up with his breakthrough hit *Finders Keepers*; his first game to feature Magic Knight. The character would go on to feature in three more games, *Spellbound*, *Knight Tyme* and *Stormbringer*, and became a cult figure for the Spectrum, tying together the platform and adventure genres to give the player a unique experience. After success with the Spectrum, David stuck around with games over the years, having a hand in the development of games for the Amiga, PC, Xbox, PlayStation and up to current-generation consoles.

After such a long career in writing videogames some may be surprised you started your working life as a quantity surveyor. How long did you spend doing that and how did that get you into programming?
Only for about two or three years. There was a task that I needed to do at work so I took my home computer to work to do it quicker – they saw that I could use a computer so they invited me to move to the head office to write software for their new Commodore micros. For me, it was an interesting step, but I did wonder what they were thinking. I had enthusiasm, but no training and no idea how to deal with customer expectations, so when they told me what they wanted me to write, I just got on with it and started writing. No design documents, just enthusiasm – it was never going to work out.

Do you remember the first computer that you owned?
Yes, it was a Video Genie, which was basically a 16K TRS-80 model I clone with a built-in tape deck. There weren't a lot of games available for it but Tandy sold low-resolution monochrome versions of arcade games like *Galaxians* and text adventures with two-word commands like 'Get Axe', 'Go North' etcetera. With no graphics, a lot of imagination was required.

I spent a lot of time typing in games from books with most games taking longer to type and debug than I ever spent actually playing them. At the time, I was always irritated when they wouldn't work first time and then when they wouldn't work even after I'd made sure I'd typed them in accurately. I didn't realise what good training this was for being a programmer, as fixing my typos and then the printing errors in the magazines and books meant I needed to understand the programs a lot better. It wasn't long before I was entering programs and making changes on the fly so that the eventual result would be better. That only lasted a while, though, because within two months I was looking at assembly language and there weren't any easily available assembly language listings for the TRS-80 or Video Genie.



» [ZX Spectrum] *Bonkers* was the first published game that David released and was based on an idea by Albert Owen.

Was there anything in particular that sparked your interest in writing games?
Initially, no. I played some games on my own computer and learned how to write assembly language so when the ZX Spectrum arrived, it was obvious to me that I should write for it. But without Albert Owen, the father of Ray Owen who created the graphics in all the *Magic Knight* games, I probably wouldn't have written anything publishable. He was enthusiastic and supportive and obtained the device I used to download from the TRS-80 model III (my second computer) to the Spectrum.



> I played some games on my own computer and learned how to write assembly language
>
> David Jones



SELECTED TIMELINE

GAMES

- **BONKERS** [1984] ZX SPECTRUM
- **DYNAMIC GRAPHICS (UTILITY)** [1984] ZX SPECTRUM
- **DYNAMIC PROGRAMMING (UTILITY)** [1984] ZX SPECTRUM
- **FINDERS KEEPERS** [1985] ZX SPECTRUM
- **SPELLBOUND** [198]5 ZX SPECTRUM
- **TYPE ROPE (UTILITY)** [1985] ZX SPECTRUM
- **FOURTH PROTOCOL** [1985] ZX SPECTRUM
- **KNIGHT TYME** [1986] ZX SPECTRUM
- **SPELLBOUND 128K** [1986] ZX SPECTRUM
- **STORMBRINGER** [1987] ZX SPECTRUM
- **ECO WARRIORS** [1990] PC
- **GNOME ALONE** [1991] ATARI ST
- **COSMIC SPACEHEAD** [1993] PC
- **DARK STALKERS** [1995] PLAYSTATION
- **OVERBOARD** [1997] PLAYSTATION, PC
- **G-POLICE 2** [1999] PLAYSTATION, PC
- **RC-REVENGE PRO** [2001] PLAYSTATION 2
- **XGIII: EXTREME G RACING** [2002] GAMECUBE, PLAYSTATION 2
- **DJ HERO** [2009] PLAYSTATION 3, XBOX 360, WII
- **DJ HERO 2** [2010] PLAYSTATION 3, XBOX 360, WII
- **LITTLEBIGPLANET 3** [2014] PLAYSTATION 3, PLAYSTATION 4

Your first published game was *Bonkers* for the ZX Spectrum, would you say that was just an exercise in game programming before you tried bigger things?
Bonkers was an idea from Albert [Owen]. He was a bit vague about the design, but very happy with what I wrote. It was my first go at a game and I was quite pleased with it at the time, but I knew I could do better.

How did you get to know Ray and Albert?
I met Ray through Albert, and I met Albert because somebody told me there was this ex-taxi driver running a video rental shop who wanted to break into being a games publisher. I followed up on that and it all worked out very well. Albert has since died, but I met up with Ray a couple of years ago when Sheffield Hallam University did one of their Games Britannia events based upon *Finders Keepers*. They'd contacted me and I roped Ray into it, it was good to catch up with him.

***Finders Keepers* saw the introduction of Magic Knight, who features in a series of games. How did the character come about?**
Albert came up with the initial character name and there's a bit of copyright-free art that he based the appearance on. But again, he let me just write what I wanted to and Ray did the art. The actual gameplay for *Finders Keepers*, which was originally just called *Magic Knight*, was meant to be similar to *Manic Miner*. But from the start I wanted to add something extra so that's why the mazes are in there. I didn't know it would end up as a budget title so I thought I'd need to push things a bit to compete.

By the time it was finished, *Jet Set Willy* had been released and I was relieved to see that mazes hadn't been added to the game, so I still had my unique feature. We took the almost-complete game to Mastertronic and I remember a meeting with Robert Maxwell and Richard and David Darling where they were quite positive about it, but Mastertronic had decided to create an education games range at the time so they wanted to see if they could push it in that direction. One of us, I can't remember who, suggested having price values for the objects so there would at least be a little bit of arithmetic involved and that seemed to satisfy them. In the end they released it as a proper noneducational game in January 1985.

How did the success of *Finders Keepers* make you feel?
I was pretty pleased, but I wanted to go on and do something more ambitious for my next project.

That next project turned out to be the excellent sequel, *Spellbound*. This was a big deviation from its predecessor moving from a platform game to a graphic adventure. Was *Spellbound* something that had been planned for a while, even before *Finders Keepers*, or was it developed on the back of its success?
Spellbound came about after I'd seen an early Apple machine for a few minutes and realised how a windows system could be easily adapted to a text adventure format. It was a new idea that didn't start until a few months after *Finders Keepers* was released.

Do you remember how you developed the game at all?
I started *Spellbound* by modifying *Finders Keepers*. I'd decided quite early on that Magic Knight should be taller so the first thing to do was rewrite the sprite



» [ZX Spectrum] Gordon, what can you give me for a lump of cheese and a tube of glue?

» [ZX Spectrum] *Finders Keepers* was originally intended to be like *Manic Miner*, but David soon had other plans.

> "While Finders Keepers took me three months, I think Spellbound was nearer to six months"
> David Jones



FIVE TO PLAY

Five delights from David you should play



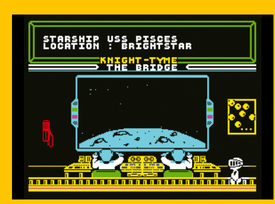
FINDERS KEEPERS

■ David Jones' breakthrough game and the first adventure of Magic Knight, which involves exploring a castle to gather items for trading, teleporting, navigating perilous mazes and having to find your way past a very large cat to escape. After this, Magic Knight moved on to even bigger things.



SPELLBOUND

■ *Spellbound* opened up a whole new world for Magic Knight; a larger castle and a cast of characters to command to get to your end goal of rescuing Gimbal the Wizard. Combining platformer elements with on-screen commands, *Spellbound* is one hell of an adventure.



KNIGHT TYME

■ The follow up to *Spellbound*, and this time Magic Knight finds themselves aboard the starship USS Pisces, tasked with the mission of finding a way back to their own time. With the help of the ship's crew, can Magic Knight gain control of the ship and navigate themselves back home?



STORMBRINGER

■ The finale of the *Magic Knight* series sees our hero up against themselves. It seems that maybe that machine they used to get home may not have been the most reliable, as Magic Knight finds it has created a doppelganger. The other Magic Knight is hellbent on destroying their original self.



LITTLEBIGPLANET 3

■ David Jones was part of the team behind the third incarnation of the creative game, in which players can create their own levels and guide Sackboy around many worlds that have been built. There are extra characters play as, too: OddSock, Swoop and Toggle are added to the fun.

routine to be 24x16 pixels. The latest games at the time had started using masked sprites rather than the earlier XOR type, so that also needed to be upgraded. Generally, platform games had moved on so a full graphic upgrade was required and my main interest was in getting a much more adventure feel into the game with genuine puzzles to solve, like the ones I'd enjoyed when playing the old text adventures.

While *Finders Keepers* took me a total of three months, I think *Spellbound* was nearer to six months. If I'd known at the start what I was writing it would have been a lot quicker, but I was experimenting as I went. Since then I've seen people design games before starting to write them, and for a while, I was persuaded that doing it that way makes more sense. Though after gaining experience from developing other projects, I am now pretty convinced that making it up as you go along is at least equally as valid as a start with a design document.

Following *Spellbound* were the sequels *Knight Tyme* and *Stormbringer*. How happy were you with these games and how was the development of these titles?

Knight Tyme was the pinnacle of the technical content of those games. I initially wrote it as one of the few original games for the newly released 128k Spectrum, but I always knew I'd want to cram as much of it as I could into the 48k version. I did what I could and added data compression and other systems to help with that. *Stormbringer* was a bit of a drag to write. John Maxwell, who was my main contact person at Mastertronic, had moved on and I didn't feel I had a good working relationship with the new person. This meant that I couldn't visit the office in the same way to get an enthusiasm burst like I was used to. I had no appetite for working further with Mastertronic after this even though I had other games sketched out.

» [ZX Spectrum] Good news banshee, it's on Netflix now! We think you've been stuck in that bottle for far too long.

Do you think those games will ever see the light of day? Do you remember what they were called or what they were about?

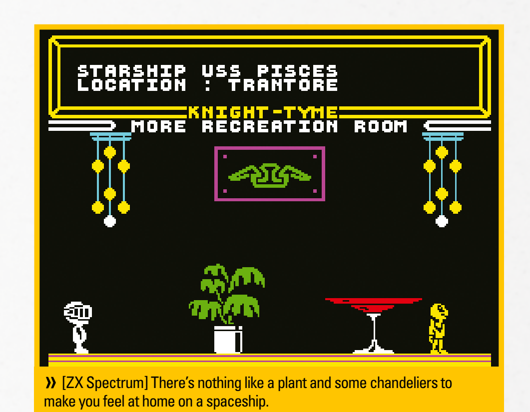
It's possible that some version of these games might eventually be seen, but there's a lot of work involved and there's very little money in the games industry for indie developers these days. If the games do appear then one basic theme is more time travel, but more like the Michael Moorcock character Jerry Cornelius than Doctor Who. Jerry Cornelius just appears in stories at different points in time without us knowing how or why he got there, unless I missed something. For those who know these books, I wouldn't be adding in the extensive drug references and other non-family friendly factors that Jerry Cornelius is known for.

You spent a lot of time working on games for the ZX Spectrum but when the Spectrum scene started to die off, you no doubt started to look at the 16-bit market. What direction were you looking to after that?

Other things came up and I experimented with the Atari ST for a while. I was sad as I saw the Spectrum market slipping away, but I knew that 16-bit would be better in many ways.

You completed your BSc(Hons) in Information Technology in 1991, was this something that you wanted to do prior but not had time, or did you feel that then was the time to do it?

I thought it would be fun to get a degree, and it was.



» [ZX Spectrum] There's nothing like a plant and some chandeliers to make you feel at home on a spaceship.

I found the degree quite easy, but then I should have. After all, I'd been writing games for ten years by then and if I didn't manage to do very well, it would have shown that I wasn't as good as I thought I was.

Did you work on any games whilst at university?

I worked on a number of games during that time, mostly for a small company based in Stroud. They weren't my own designs and, frankly, they were pretty much rubbish designed by the partner of the boss who had no real clue. But they paid a few bills at the time and I was happy with my code quality, at least.

How did the opportunity come about for you to start working at the revered Psygnosis after finishing university?

A friend and fellow freelancer had applied to work at Psygnosis' south west office, and when he told me his reasons for going for a full time job I realised that they were also valid for me so I also applied and I started there two weeks after he did. I worked on *Darkstalkers*, *Overboard* and *G-Police II* while I was there. That was for about five years until the office was shut down.

What was is like working at Psygnosis?

I mostly enjoyed working at Psygnosis, but apart ▶

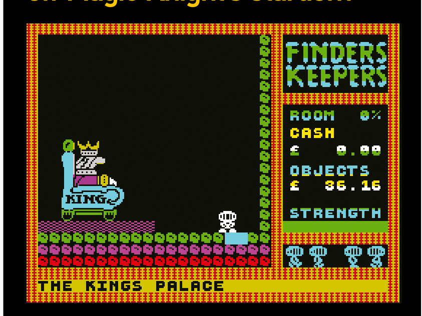




> We managed to get Acclaim to set up an office nearby and take on the entire team
> David Jones

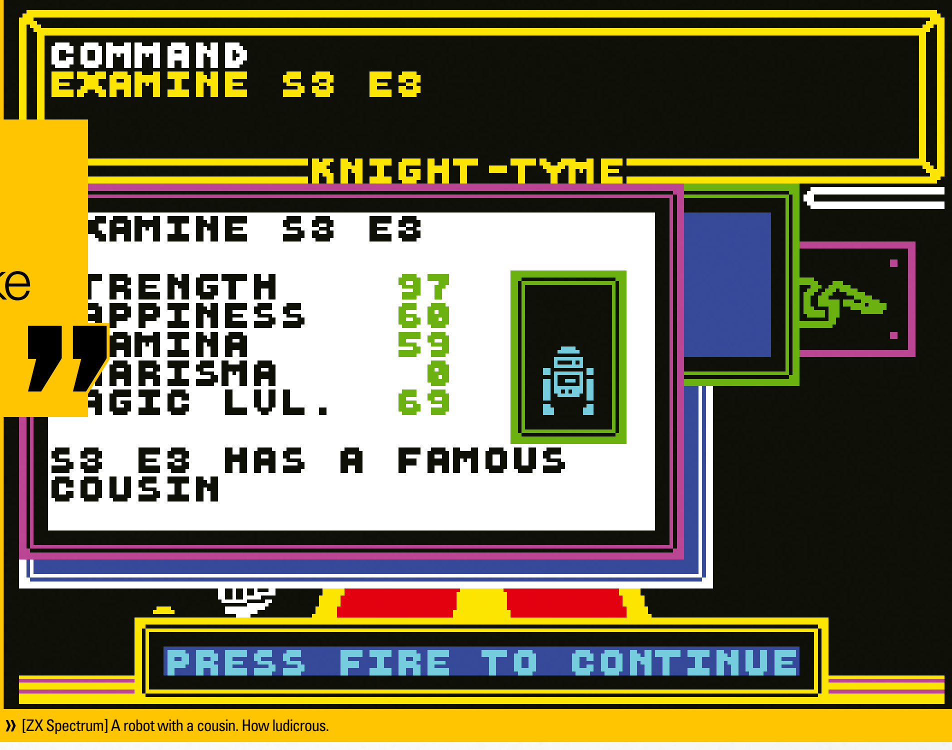
FINDERS KEEPERS

An ode to the title that kicked off Magic Knight's stardom



Where it all began; the first screen of *Finders Keepers* is certainly an iconic one. The king sends you on a mission to find a birthday present for the princess (maybe she'd love a lump of cheese?) by teleporting you to the castle to find something suitable. Many hours later, after getting lost in a few mazes, doing a few trades with Gordon and taking on a giant cat, you may find that feeling of satisfaction should you exit the castle triumphant. You also may find yourself stuck in the aforementioned maze unable to escape the many ghosts and monsters found lurking in the doldrums and hitting the '0' key to start the game again.

Finders Keepers captured the imagination of many ZX Spectrum owners and just the mention of the game brings a smile to the face of many, and went on to spawn more adventures for Magic Knight. Who was to know that the game would go on to become such a hit a go down as one of the Speccy's finest? Not only that, but the character would also become an icon of the ZX Spectrum scene as we followed her exploits through space and time over the following three games.



» [ZX Spectrum] A robot with a cousin. How ludicrous.

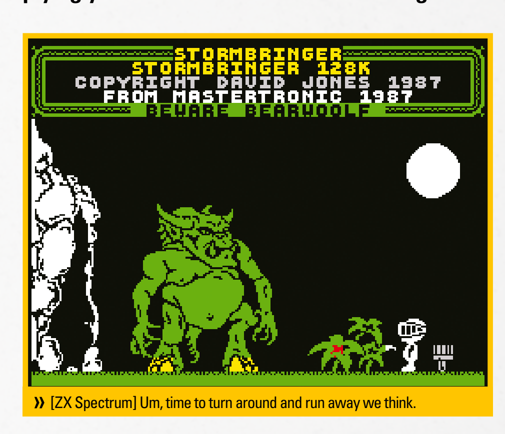
from some social media contacts I am not in touch with anybody from there anymore. It was my first experience of being employed full-time in the games industry and having to work on games that I largely didn't believe in, designed by people who couldn't write them themselves. I'd written some games before which were designed by non-programmers, but only as a freelancer, and I always had the option to turn them down. I did enjoy working on *Overboard* though and I managed to get a design idea into that.

After spending five years at Psygnosis you moved on another big name in the games industry, which was Acclaim. How was it working there?
When the Psygnosis office was shut we managed to get Acclaim to set up an office nearby and take on the entire team. It was a sweet deal, we got redundancy money from Psygnosis and some of us were kept on for a few months on the promise of a bonus for completing *G-Police II*. Then about a week after that we walked into the new Acclaim office.

You took some time out from games after working for Acclaim. Did you feel you needed to get away from games after working with them for such a long time?
No, I just realised I didn't need to work full-time anymore. I've always had more projects on the go than time to do them, so it seemed like a good idea at the time. I actually only left Acclaim at that time because I wanted to take four weeks off to go to Australia. There was a total eclipse due and I'd told my producer about two years in advance that I was going. When the schedules for the current project were made, there was no sign of my four weeks of holiday, so I questioned it – to be met with, 'You must be mad if you think you're getting that much time off!' Well, it wasn't something I could move and I had income from rental properties so I told them I would resign, go and see the eclipse and then return and offer my services to them again – just to be polite about it. But because they'd started my thinking about my future, I realised I could leave even sooner – so I did.

After moving back into the world of videogames, you became involved in the development of the games *DJ Hero* and *DJ Hero 2* by FreeStyleGames. Were they as fun developing as they were playing them? And whilst we're on the subject – how would you rate your own DJing skills?
I'm rubbish at DJing, but those games were fun to work on. Also that company, FreeStyleGames, was the most engineering-oriented games company I've ever worked for. There were a lot of very good practices used and the games were probably some of the best-quality code produced at that time.

In more recent years, you have taken the move across the sea to work abroad, currently plying your trade in the Netherlands as a games



» [ZX Spectrum] Um, time to turn around and run away we think.



» [ZX Spectrum] Maybe wearing a suit of armour during a thunderstorm wasn't such a good idea.

lecturer at Breda University. How did this role come about?
I was looking for a way to get out of writing games and I'd explored the options of becoming a maths or computer science teacher. I did some practice days at a local school and I still believe I'd have been good at that, but teachers aren't paid anywhere the sort of money that I am used to so I couldn't really afford to do it. Then a friend told me that NHTV were looking for an experienced games programmer to teach and landed that job. I'm enjoying it here and feeling like my experience is of use to our excellent students.

There was talk a while back that new versions of *Spellbound* and *Finders Keepers* were being worked on. Are these both still happening?
Spellbound was looking good last time I saw it, but progress is quite slow due to Mike Hall, the programmer, having other commitments. *Finders Keepers+* is my own project and I progressed it quite far before putting it on hold for a bit; my aim is to see how good I could have made it if I knew then what I know now.

What format will these games be released on should they come to fruition? Is there any chance of a physical Spectrum release?
Spellbound is being rewritten in Unity so the target platform is flexible and *Finders Keepers+* is purely an assembly language project for the 48K ZX Spectrum. No 128K version, and unless somebody wants to throw a wad of cash my way, there will be no Next version either. If or when I complete *Finders Keepers+* it is my intention to do a limited cassette tape run of it.

Are there any interesting stories that you'd like to share from your long career?
Just after *Spellbound* was released I was browsing the computer and gadget shops in Tottenham Court Road in London, when I spotted somebody buying the game. I couldn't help myself; I said to the buyer, 'I wrote that!' – imagine my shock when he replied, 'No, you wish you wrote it!' Anyway, when *Spellbound* was released I had the confidence to insist that Mastertronic put my name on the tape cover, so after I recovered from the shock of that statement, I showed him my name on my credit card and he believed me. He was buying it for his son so he asked for some tips and I think he asked me to sign it – but it was three decades ago so I'm not 100 per cent certain about the signing.

Are there any tips you can share now? Because after three decades, we are still struggling to finish it!
I can't really offer any tips this long after the release of *Spellbound*, but there are YouTube videos of the solution. If I was going to play it again myself I'd find a good one of those and keep it handy. I think I'd be more likely to replay the 128K version of *Knight Tyme* though. I think it's the best of the trilogy.

Are there any projects that you're involved in at the moment that we can look forward to seeing in the future?
Yes, there are a few things I'm working on currently. Firstly is my science fiction book, which is currently planned as a trilogy. The working title for the trilogy is *The Ada Chronicles* – as in Ada Lovelace, the mathematician who worked with Charles Babbage on the Difference Engine. Another book I'm working on is about how to write science fiction, currently called *The Writers' Handbook – Science Fiction*. I actually wrote this first, which now feels a little arrogant, but my main reason for writing it was good. Far too much new science fiction uses broken or tired old tropes that earlier authors have covered. I realised I should write a book about how to write decent science fiction. I'm looking for a publisher at the moment.

Another project I'm working is *The Magic Knight Game Book* – I wrote the first version of this around 1988. It's a fighting fantasy-style adventure book that now only exists on faded print out. I am reading this to my computer and I will be editing it as a collaboration between a young me and current me.

Also there's my board game, currently called *Path of the Mage*, which is a hex tile-based game that I'm prototyping at the moment.

Finally, how do you feel about the legacy of *Magic Knight*? It must be a good feeling that the character has had such an impact on fans.
I really appreciate how loyal the fans have been. It's not a frequent thing, but every now and then somebody asks me what I do. I tell them I write games, to which they reply, 'Anything I know?' I ask them how long they have played games, and if they are old enough to have played Spectrum games or say they like retro games, I'll mention *Magic Knight*. It's great when people tell me they loved playing those games because I loved writing them and sometimes people have told me that they are writing games themselves because of my games. Obviously I realise, it's not just my games, but it's nice to feel a part of it. *



» [PS3] Despite not being a deft hand with the actual instrument, David took to the turntables to help produce FreeStyleGame's *DJ Hero*.

YOU ASK THE QUESTIONS

The Magic Knight creator answers your queries

ZX_SPECTRUM_30: Be good to know if *FK* was always intended to be a budget title and if Mastertronic were first choice?

No, *Magic Knight*, as it was originally called, was intended for £5.95 release by Procom, the company set up by Albert Owen, father of Ray Owen, who was the artist. But that company didn't manage to survive so Albert arranged for us to meet Mastertronic and they loved it so it became a budget game.

WIZWORDS: Why did Magic Knight have such a weird jump in *Finders Keepers*?

Largely because I just did the simplest jump possible. Let's call it a 'magic' jump. It was just a straight line +1y for every change in x for (I think) 16 steps.

DEKAY01: The mazes in *Finders Keepers* were the most frustrating parts of my childhood gaming. Were they this hard intentionally?

I don't like people completing my games quicker than it takes me to write them, so yes, they were meant to be a challenge. But the maze enemies were on simple paths and there were places for Magic Knight to hide. Also, I had to play test them a bit so there's a limit to how hard I'd make them.

JOHNNAAAAAAA: What are your thoughts on the Spectrum Next, and what is the likelihood of writing or licensing something for it?

The Spectrum Next is, in my opinion, what should have been created next after the 128K Spectrum. It would've been great back then and I expect I would have written for it, but I have too many active projects at the moment. However, if somebody with appropriate levels of skill wants to discuss projects where they write the code and I design the game, then I am open to that.



Castlevania: Harmony Of Dissonance

SLAYING WHILE ACCUMULATING

RETROREVIVAL

» GAME BOY ADVANCE » KONAMI » 2002

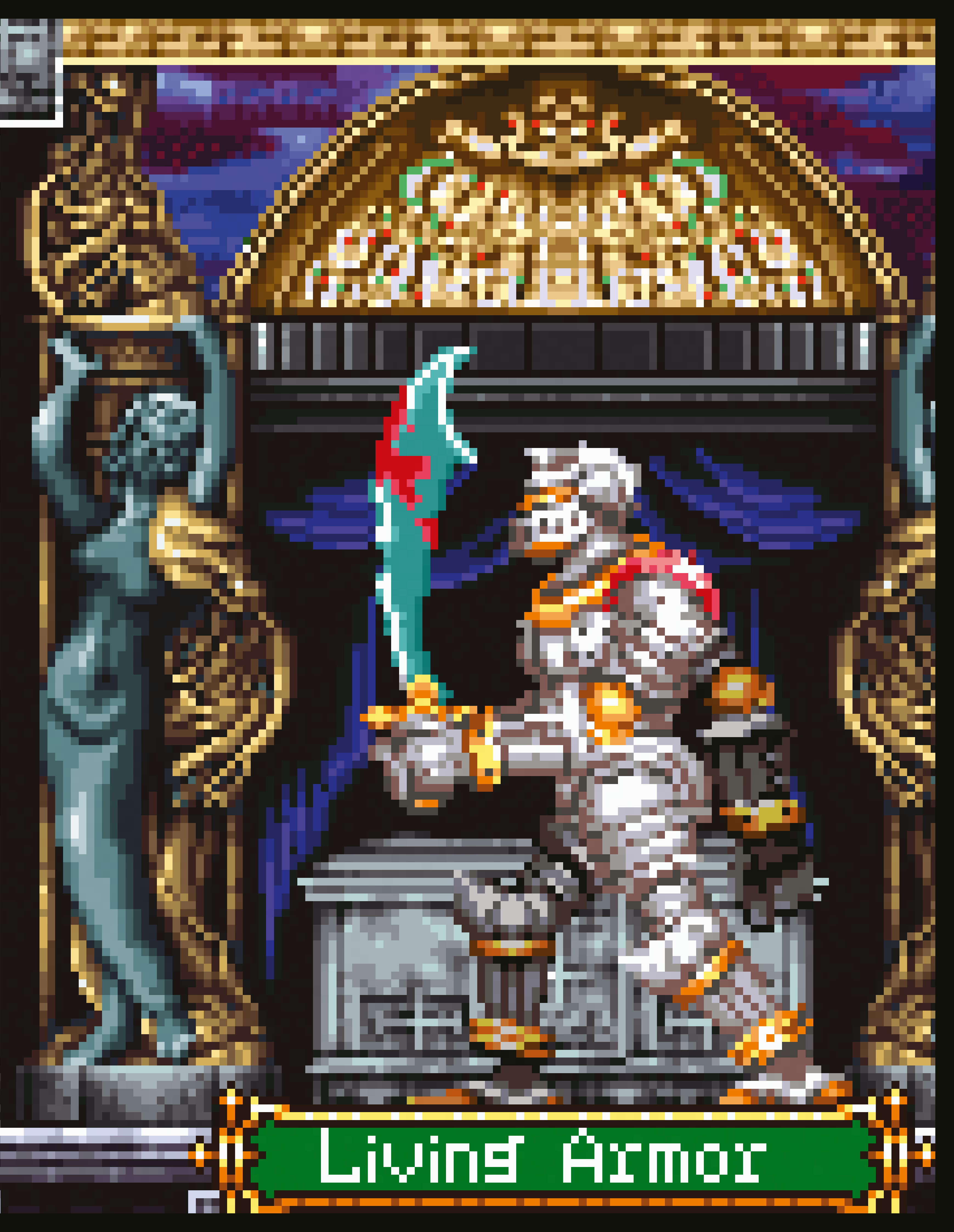
I didn't need to buy a copy of *Harmony Of Dissonance* earlier this year and I certainly didn't need to pay £48 for the privilege. I already own it on the Game Boy Advance as part of a double pack that also contains *Aria Of Sorrow*, so it felt like a somewhat frivolous purchase even to me.

I really did *need* to have it though, mainly because I absolutely love the early *Castlevania* games and *need* to know I have all the original games on the many systems I own. I'm sure a therapist would take great interest in my use of the word 'need' here, but that's what happens when you walk down dark paths (and I've walked down more than a few with my collecting pursuits over the years, as anyone on the team will tell you).

Interestingly, though, *Harmony Of Dissonance* is not a game of dark paths, even though the setting remains as Gothic and macabre as any other of the franchise's titles. Aware of the criticisms made over *Circle Of The Moon*, Konami made numerous changes to ensure that its GBA sequel was far easier on the eyes and while it has larger sprites and more varied environments it's also a little gaudy in places thanks to some odd colour choices that would ensure those playing on a non-backlit GBA wouldn't have any problems.

Interesting palette choices aside, *Harmony Of Dissonance* is a cracking adventure that never outstays its ten-hour playthrough. I recently completed it earlier this month (I got the 'okay' ending if you were wondering) and it still impresses me thanks to its dual castles to explore, dynamic and varied weapons and brilliant boss encounters. Best of all, the last time I checked on eBay, a copy recently sold for £80, which is always pleasing to see.

I may not have needed to buy *Harmony Of Dissonance*, but I'm bloody glad I did. Now all I need to do is get rid of that double pack. *


Living Armor



>> The impossible becomes true and Shenmue fans finally get their much asked for HD reissue. In fact it's reissues all round, with Titan Quest, Another World and Okami all being ported to Switch


» [PS4] Fights can be pretty spectacular, with furniture tumbling over as the brawl continues.

Shenmue I & II

"MAYBE I SHOULD GET ANOTHER?"

INFORMATION

» **FEATURED SYSTEM:** PS4

» **ALSO ON:** XBOX ONE, PC

» **RELEASED:** OUT NOW

» **PRICE:** £24.99

» **PUBLISHER:** SEGA

» **DEVELOPER:** D3T

» **PLAYERS:** 1

» [PS4] Low-res textures from the original game have been left untouched, like this punk's jacket.



As fan followings go, it's fair to say that *Shenmue*'s is amongst the most passionate in the gaming business. Years of relentless campaigning for a re-release have shown a clear and unwavering belief that Yu Suzuki's magnum opus is special – but Sega lost a lot of money on *Shenmue* before, and it's easy to get the feeling that it hasn't put too much budget behind this new remaster. But before we address that, let's talk about how the games play today.

Although *Shenmue* was never originally billed as an RPG, that's essentially what it is. You play Ryo Hazuki, a young man out to avenge the murder of his father, in a quest that involves exploration and information gathering, fighting (using a real-time battle system), minigames and QTE sequences. The games are as much about getting lost in the authentic environments as making progress through the story, and you'll frequently find yourself buying capsule toys, visiting the arcade and just popping into random shops to see what they're like. Over the course of the games, the story will take you from a sleepy Japanese suburb to Hong Kong and mainland China, with a slow build that leads to some impressive and memorable sequences, particularly during the second game.

Open world adventures have moved on considerably since 1999 and revisiting *Shenmue* is a potent reminder of that. Ryo is a bit of a pain to control, getting stuck behind pedestrians and moving rather deliberately – particularly if you just want to move backwards, which involves a full 180 degree turn, a couple of steps forward and then another turn. Additionally, the series has a reputation for being somewhat idiosyncratic and meandering, and the first game in particular has a glacial pace, with very few action sequences until the late part of the story. Then there are odd design choices – if a character won't show up until 7:00pm in the game, you just have to occupy yourself until then as there's no option to let time pass. *Shenmue II*





BRIEF HISTORY

» At the time *Shenmue* was released in 1999, its world felt more alive than anything seen in a videogame before – but at a cost. AM2's game was the most expensive ever made at that point, and despite selling a million copies, Sega took a big loss. With the sequel performing better despite also appearing on the Xbox, the series went on a long hiatus until Yu Suzuki announced a third game in 2015.

✱ PICKS OF THE MONTH



DARRAN
Titan Quest
It's not a fantastic port but I can't stop slaying satyrs, centaurs and other Greek monstrosities during my lunch breaks.



DREW
Okami HD
Regardless of what system you play it on *Okami* is great. And the Switch version just makes it more versatile.



» [PS4] And with that one sentence, a generation of internet memes sprang into being.

WHY NOT TRY

▼ SOMETHING OLD
YAKUZA 0 (PS4, PC)

▼ SOMETHING NEW
SHENMUE II (DREAMCAST)





» [PS4] Passing time at the arcade is great fun – *Hang-On*, *Space Harrier*, *Out Run* and *After Burner II* are available.

does include this option and other improvements such as the ability to ask about specific topics, as well as a more action-packed story.

Despite the problems, the *Shenmue* games do retain something special. At times, it's easy to forget that the first game was released in 1999, as the scale and ambition of the world is beyond anything else available at the time, and the mix of activities is pretty close to that found in Sega's own *Yakuza* series. But unlike its younger cousin, *Shenmue* trades in very fine details, allowing you to knock on every door and follow every NPC's daily routine. It doesn't add much to the game other than atmosphere, but this commitment to detail is still impressive – you can visit places that are completely unnecessary and they'll still be modelled with care and attention, and every character has voice acting. What's more, when the story finally does get going, sequences such as the 70-man battle and escaping a dilapidated building while handcuffed to a reluctant ally are truly exhilarating.

The games are presented with a refreshed UI, HD rendering (which can be switched off if you prefer) and widescreen support – though this is only during gameplay, as cutscenes are presented in 4:3 in the first game and letterboxed 4:3 in the second. There's also the option to add bloom lighting, depending on your taste, and you can choose to use the English or Japanese voice acting – this wasn't an option in any of the original releases. Some people find the hammy acting of the English dub to adds to the charm, but we found ourselves sticking to the Japanese. Loading times have also been minimised, which greatly improves pacing.

But while everything that has been done is good work, that's the extent of the improvements and there was plenty of room for more. The Dreamcast relied more on textures than polygon geometry for detail, which is a look that doesn't translate well to HD without major care – and since the original low-res textures haven't been improved, the game is full of smeary, blurry objects. Slowdown and pop-in remain present where they existed in the original games, and ideally *Shenmue II*'s improvements (such as the time-skip option) would have been ported back to the original. Additionally, there's a lot of bonus material that doesn't appear to have made the transition to the compilation. The Shenmue Passport content isn't included, and neither is any of the concept art found on *Shenmue II*'s original discs. This won't detract from your enjoyment of the games, but these materials could have made for an excellent museum mode as found in other retro releases.

Ironically, despite being demanded by the die-hards, it might be series newcomers that get the most from this release. If you're just looking for a way to play the first two games in the series without having to fork out for a Dreamcast and expensive original copies of the games, this collection will mostly do the job fine. But the hardcore fans will likely keep their original copies, thanks to a lack of bonus materials and missed opportunities to improve the games. ✱

In a nutshell

The *Shenmue* games aren't everyone's cup of tea, but they're still exciting adventures that are capable of impressing, despite some antiquated features. It's just a shame the remaster didn't go further.

>> Score **81%**



» [PS4] *Shenmue*'s cutscenes are pillarboxed into a 4:3 format, as the original coding didn't account for widescreen displays.

✱ PICK OF THE MONTH

WarioWare Gold

» System: Nintendo 3DS **» Buy it from:** Retail, Online **» Buy it for:** £30

There's no game series that produces a feeling of pandemonium like *WarioWare* does. And that's a fact that's neatly punctuated by *WarioWare Gold*, a compilation that showcases a tempest of microgames from throughout the series.

The microgames are sorted into three different 'divisions': Mash, Twist and Touch, depending on which control scheme is being used. However, later on you can enter into modes which scramble all three together, turning your humble 3DS into a madcap, sweaty-palmed game of Bop It as you try and parse what the game wants you to do. This is the best way to experience *WarioWare Gold*, as it perfectly showcases the madness that makes the series so unique and fun to play.

Getting to these high-level and low-sanity game modes is a bit of a slog, however, because you have to clear the story mode to get to them. It's not that the story itself is bad or anything – it's actually well animated and quite funny in places – it just feels a bit at odds with that *WarioWare* is about. The mode eases you in with gentle jogs of no less than 20 microgames per session, each culminating in an easy 'boss'. And you have to do this 15 times for each of its characters before getting to the good stuff. That said, it won't take long to finish – no more than two hours – so you can soon get those fast and frantic modes with all the microgames unlocked.

The selection on offer is great. Nintendo has included 316 microgames with *Gold* and it feels like a suitable 'best of' for the series. The 'just one more go' compulsion to clear as many of the zany, off-kilter and downright bizzare minigames as possible as the speed and difficulty ramp up is just as fun as it was when it was introduced on the GBA in 2003.

It makes for a good compilation for both those of you who are after a nostalgic toybox and for those who haven't encountered the wild world of *WarioWare*. You could arguably have put this on the Switch, however the control schemes would work best on the 3DS, and it serves as a stark reminder of the handheld joy that *WarioWare* delivers.

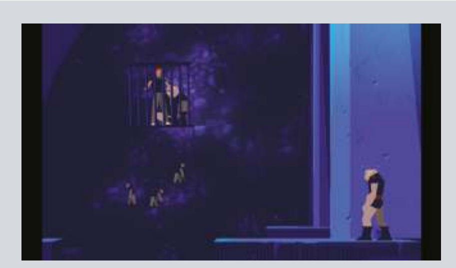
 Score **80%**





» [3DS] Some of the games have had a touch-up graphically.

» [3DS] A lot of classic Nintendo games put in appearances, like the NES's *Balloon Fight*.



Another World

» System: Switch
» Buy it from: Online **» Buy it for:** £8.99

The classic adventure has made the journey to yet another system. *Another World* offers many memorable moments thanks to its cinematic approach and remains enjoyable today, but it has always been a little short and low on replay value. We've often felt that the control scheme could use an update, too. Handling all three functions of the laser blaster on one button is authentic but fiddly, and feels unnecessary without the constraints of a one-button joystick.

The Switch version includes all of the welcome enhancements that have been common to versions since the *20th Anniversary Edition* – optional HD graphics, a choice of soundtracks and three difficulty modes. If you're looking for a way to play this classic, this is a good option.

 Score **79%**



Okami HD

» System: Switch
» Buy it from: Retail, eShop **» Buy it for:** £15.99

Capcom continues its quest to rerelease its PS2 classic on each system known to man. This latest offering isn't quite as sharp as the recent PS4 and Xbox One versions when played on the move (where it drops to 720p), but it's a small sacrifice for being able to play anywhere you want and it still manages to looks great. Other differences that set Switch *Okami* apart from its peers include the ability to use motion controls, or to swipe your finger across the touchscreen when using the game's Celestial Brush. It's otherwise the same great remaster, featuring neat additions like the ability to switch between widescreen and 4:3 aspect ratios and the option to skip cutscenes. A great *Zelda*-like adventure that we'll never get bored of playing.

 Score **82%**



Titan Quest

» System: Switch
» Buy it from: Retail, eShop **» Buy it for:** £35.99

Iron Lore Entertainment's Grecian take on *Diablo* remains as fun now as it was in 2006. Granted, the genre has come a long way in the last 12 years, but the core mechanics remain sound with a fantastic character tree at its core, along with an engaging world to explore that's full of classic monsters and heroes.

Sadly, this Switch port isn't as good as it could've been and while aspects like online multiplayer and a new control system are greatly appreciated, there are a lot of niggly aspects like a hard-to-read map (particularly noticeable when playing undocked) your character occasionally freezing, as well as disappointing framerate stutters and other issues that makes it hard to justify the high asking price.

 Score **65%**

» [PICO-8] Exploring in *CODE-8* and finding parts to repair your spaceship.

Gaming NEWS

THE ADVENTURE GAME



» [Windows] *Aye Fair Lady*'s Steggy getting into trouble on Mandatory Singing Day.

» [TRS-80 MC-10] Pausing for a spot of self reflection in *Kinder Morgan*.

Running for a couple of weeks in May, the AdventureJam was an online challenge for developers to put together a story-driven game. There were over 60 entries spread over a range of different platforms – everything can be discovered by examining Kikstart.eu/adventurejam-2018 – so there's lots to explore and too much to cover in detail, but here are a few entries which grabbed our attention.

CODE-8 is a LucasArts-style point-and-click adventure game for the PICO-8 fantasy console where the player starts the story stranded on an alien world. Their battered spacecraft is structurally sound and everything needed to get it back into the great black yonder can be scavenged, but the bigger questions are what caused it to crash in the first place and is that related to the other downed craft nearby?

A little more literally down to Earth is *Spy Quest 1 – Mission: SPECTRUM* where the player is an agent for the Highly Clandestine Agency – we have never heard of them, but that's probably what a secret organisation would want – on an important mission to infiltrate the headquarters of Spectrum Enterprises in order to find out what their latest nefarious plot is and how it can be foiled. And continuing the espionage theme is *Cross Purposes*, a multiplayer variation on point-and-click games where a detective, assassin and spy must work together in their search for a notorious mobster but might find as the game progresses that their aims aren't entirely aligned.

There are some quirkier games as well. Sticking with the point-and-click motif but going for a more mundane scenario is Nine Survive which the developer describes as "a cross between *Skool Daze* and *The Office*" where the player's avatar is starting their first day at an exciting new job but might not make it to the second. *1 New Message* delivers its story about a mysterious family weekend through a mobile phone interface and text messages. If that's not strange enough for you, how about a Yorkshire-based comedy musical with robots called *Aye Fair Lady* where heroine Steggy decides to end the tyranny of Mandatory Singing Day and the machine overlords enforcing it?

To finish off there's Kinder Morgan, a traditional text adventure with a two-word parser for the Tandy TRS-80 MC-10 that starts out as a bracing hike through Canada's Rocky Mountains but soon turns into something far darker.

NEW GAMES NEEDED

If you have a homebrew project you would like to see featured then please contact us at: **retrogamer@futurenet.com**

HOMEBREW HEROES

After playing Bomb Jack Beer Edition on the Amiga we wondered where the idea to do a new conversion of the classic came from. So we grabbed developer Graeme Cowie for a chat



THE BIG INTERVIEW Graeme Cowie

The Amiga already has a port of *Bomb Jack*, what was so wrong with it that needed fixing?
The Amiga received a straight ST port of *Bomb Jack* and didn't make use of any of the Amiga's custom chips so as a result the performance suffered badly. The music wasn't the best, either.



» [Amiga] Caught between pursuing rocks and an explosive hard place.

How long did *Bomb Jack Beer Edition* take to create and who was involved?
I started the project one night during October 2017 when I grabbed my A500 from the attic and was looking through my old source disks, I was reminiscing about how much I enjoyed coding back in the day with aspirations of being a games coder. On Halloween 2017 I posted on the English Amiga Board coders forum about writing a sprite driver for a game, set off coding using some *Bomb Jack* test sprites and it snowballed from there.

I began by coding the enemy mummies walking and falling off the platforms and by mid-December I had all the scenes in place along with the collision detection routines. If you look for my thread on the EAB coders section I documented my entire progress every few days with YouTube videos! By January 2018 I announced I was making an arcade port of the game in the main EAB forums where it caught the attention of one of the musicians - Simone JMD Bernachhia – who offered to help with the game music and sound effects. The entire game took six months to code in 68000 assembler using Devpac, though later I moved to a cross assembler for speed.

So… why is it called the *Beer Edition*?
Well I do like a beer, growing up in the Eighties around Sunderland I spent a lot of ten pence's in the arcades playing *Bomb Jack* and when I wasn't there I was tinkering with my Amiga so I thought I'd combine the three- beer, Amiga and *Bomb Jack*. The idea I had planned for beer edition was to have landmarks that are located within my favourite places to socialise, so new rounds included in the game are Penshaw Monument (Sunderland), Big Ben (London), Chichen Itza (Mexico), and Edinburgh Castle. The original plan was that Jack would collect beers instead of bombs but I had to settle for just giving the player lots of points when collecting bombs on these extra rounds due to my available time.

What sort of feedback have you had so far?
The feedback has been really positive, pretty much everyone who plays it tells me it is close to the arcade so I'm quite happy with the end result.

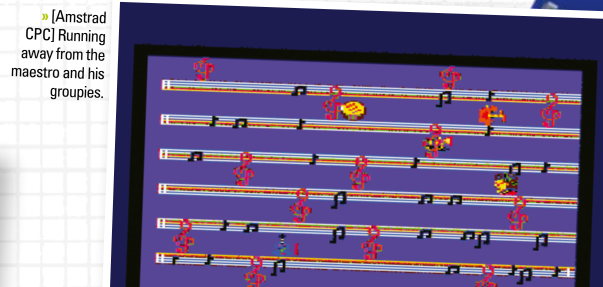
And finally, do you have any future plans our readers would be interested in?
Coding is very time consuming and has to be balanced with family life, so I'm taking a break. I like the idea of making some Amiga game coding tutorial videos to help other developers bring more games to the Amiga homebrew scene so I may do this, if not then I'll make another Amiga game as it is so much fun.



» [Amiga] Getting perilously close to defusing the last couple of bombs.



» [Amiga] Gathering a couple of enemies before the power-up expires.



» [Amstrad CPC] Running away from the maestro and his groupies.

STRANGE STORIES

The Amstrad CPC has received two new games from developer Sebastian Braunert recently. Pink Pills stars Moritz, a dog who hasn't been well and, due to the side effects of his medication, hallucinates about searching for bones while being pursued by postmen and vampires. The chase starts behind the link at Kikstart.eu/pink-pills-cpc.

The other release is *Mike The Guitar* where the titular instrument just wants to play a little Nirvana but needs to collect plectrums to practise with and avoid the bust of Beethoven and his gang of sentient instruments. Kikstart.eu/mike-guitar-cpc takes you there.

> **"Everyone who plays it tells me it is close to the arcade"**



» [CD32] Slamming the brakes on before weaving through some deadly traffic.

HITTING THE GAS

Fire up your Amiga and hit the streets for some FMV-powered vehicular vengeance with the recent version of *Road Avenger*. The plot as always sees the lead character driving a souped up car and taking on the biker gang who murdered his wife on their wedding day, mostly by reacting to on-screen button prompts.

This conversion seems pretty solid – better than the Mega CD version in fact – and comes in a couple of different flavours at Kikstart.eu/road-avenger-amiga, including an ISO image for the CD32.

Gaming

REVIEWS

·DO YOU· REMEMBER?

Head to the garden for some bug splattering action with Sinister Developments' Atari ST homage to the coin-op classic *Centipede*. The action is mouse-controlled and quite challenging, even on the easiest difficulty, with the player's avatar spending most of its time harassed by bouncing spiders, snails which leave a trail of mushrooms, fast-moving scorpions and of course the titular centipedes.

There are also occasional bonus waves where lots of one enemy pile into the play area. These last for 20 seconds or until a life is lost and braver players can rack up a decent score during them. It's not a 100 per cent accurate conversion, and the collisions have to be learnt and allowed for, but *Centipede* is solid enough to keep most happy. Kikstart.eu/centipede-st will lead you into the garden.



» [Atari ST] Avoiding the spider swarm.



» [Atari ST] There's lots of bugs in this program that need blasting.





THE WORLD WAR SIMULATOR: PART II

» **PLATFORM:** ZX SPECTRUM, AMSTRAD CPC » **DEVELOPER:** RETROBYTES » **DOWNLOAD:** KIKSTART.EU/WW-SIM-SPEC » **PRICE:** FREE

VR has finally matured by the year 3000 to the point where the populace spend the majority of their time in virtual worlds to avoid dealing with the dystopia that surrounds them. Pretty much any experience can be created on a whim, allowing the user to experience and indeed interact with any point in human history such as posing for Da Vinci or sitting in the front row at a Beatles concert. But one particular user named Richard Burton doesn't want to enrich himself in this way and has instead decided to simulate killing Hitler.

Richard will need to infiltrate the bunker, take out guards along the way and, on finding their leader, deal with him. Despite running on state of the art hardware, the AI managing the soldiers isn't particularly bright so they wander around in a rather erratic manner – the best strategy is lying in wait until one wanders into the line of fire, although it becomes a reaction test when they do – and, when they spot an intruder, they're often frustratingly accurate with their shots which means quickly ducking in and out of the each screen to ascertain what threats are present will work far better than a thud and blunder approach.

There are some slightly anachronistic vending machines which freely serve up more ammunition and life-restoring medical packs and, while they might not be particularly frequent, Richard can also search the environment to find more supplies and the keys he'll need to progress through the bunker. Not touching the mines is advisable though, since they'll explode on contact.

Strange scenarios aside, *The World War Simulator: Part 2* is a reasonable if flawed top down shooter, entertaining but marred by the random movement of the enemies and a few screens with wider entrances where merely walking in at the wrong position can see the 'hero' unfairly gunned down without time to even retreat. That's frustrating when it happens, but the game is still playable so more hardy VR warriors might want to try their luck at the mission.



>> Score **70%**



» [ZX Spectrum] Less than stealthily dealing with one of the patrolling guards.



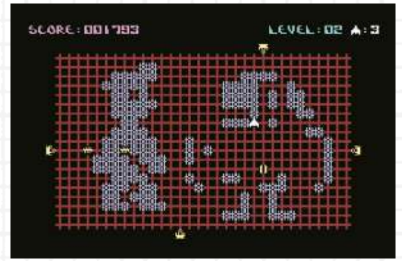
» [Amstrad CPC] Important keys can be found in the oddest of places.

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GRIDIRON

» **PLATFORM:** COMMODORE 16 » **PRICE:** FREE
» **DEVELOPER:** FANTASY SOFTWARE DESIGNS
» **DOWNLOAD:** KIKSTART.EU/GRIDIRON-C16

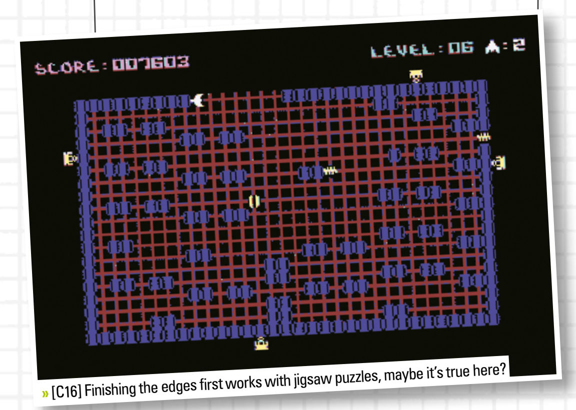


» [C16] You two chaps look familiar, have we met before?

It might look a little like Jeff Minter's classic blaster *Gridrunner*, but the objective in *GridIron* doesn't involve shooting anything. Instead, the player has to collect all of the tokens scattered around the grid in order to progress to the next area. There are enemies patrolling at the edges of the playfield which will sling bullets at the player's craft when they're aligned with it and, since the collectibles on the level are reset when a life is lost, it's best to concentrate on survival as a priority, gathering tokens only when it's safe to do so.

GridIron is fast, furious and challenging to the point where all three lives can be lost within mere seconds if the player's concentration drifts but, along with occasionally being frustrating, is fun to play in short, high octane bursts. There's even a neat little level designer included for those gamers who fancy being a little creative.

 Score **81%**



» [C16] Finishing the edges first works with jigsaw puzzles, maybe it's true here?

PRISONNIER 2

» **PLATFORM:** MASTER SSYTEM » **DEVELOPER:** OFFGAME
» **DOWNLOAD:** KIKSTART.EU/PRIS-2-SMS » **PRICE:** FREE

The future of TV game shows is all about one-on-one action, pitting two people directly against each other in a battle of wits and strategy. The studio floor has been divided into a play area which is nine tiles square, and the two players take turns first selecting an adjacent cell to move into and then placing an obstruction in any free space with the intention being to wall their opponent up so they're stuck on a single tile while trying to avoid the same fate themselves.

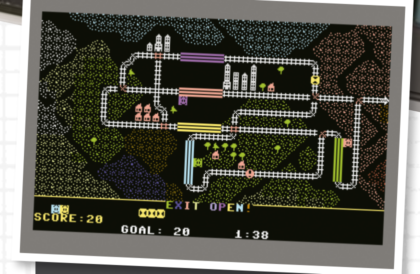
There's not much else to it really, the console's AI plays reasonably well most of the time but single player mode becomes repetitive quite quickly. *Prisonnier 2* is one of those games that works best with two players vying against each other for space on the playfield, so finding a friend with a second Master System controller to compete against yields the best overall experience.

 Score **74%**



» [Master System] We're going to build a wall. It's going to be a powerful wall.





ROUNDUP

Running a railway is a tough job especially if, as seems to be the case in *Trolley Follies* for the C64, you're the only driver. You'll have to pick up passengers and drop them off at their colour coded station of choice, pausing to act as signalman to switch the points where necessary. The game also comes with a level editor and users can submit their creations to the developer's website behind Kikstart.eu/trolley-follies-c64.

The unexpanded VIC 20 release *Escape* is an action game where the exit for each maze-like stage must be unlocked by collecting all of the key cards. The craft starts moving when the level begins and can't be stopped, so care must be taken to avoid collisions with walls as well as the enemy. Run away to Kikstart.eu/escape-vic.

PROJECT ZX 2

» **PLATFORM:** WINDOWS » **DEVELOPER:** LANGFORD PRODUCTIONS » **DOWNLOAD:** KIKSTART.EU/ZX-2-WIN » **PRICE:** FREE

Sir Clive Sinclair was never happy about his creation the ZX Spectrum being associated with games and, in an alternative universe where he's evil as well as a genius, something is going to be done about that. His newest invention is the C6, a washing machine that erases the character from Spectrum game sprites, deleting Horace, Sabreman and Miner Willy from the public consciousness.

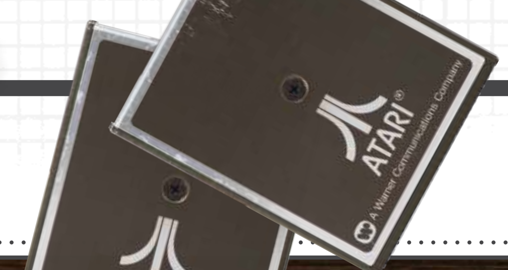
Enter our hero Jetboot Joe, a character who didn't quite get the leading role in a game despite trying for decades who now has to take on the heinous Sir Clive and his minions by flying through large multidirectionally scrolling stages and blasting pretty much everything within them to pieces. There's lots to see in each area with setpieces relating to famous Speccy games, as well as bonus items to collect and power-ups delivered by Horace as he floats through the playfield with a balloon.

 Score **84%**



» [Windows] Having a smashing time with the boss from a famous shoot 'em up.





MAILBAG

HAVE YOUR SAY… SEND US A LETTER OR MAKE YOURSELF HEARD ON THE ONLINE FORUM – **WWW.RETROGAMER.NET**



TEAM PLAYS
SPACE INVADERS



We've jumped back in time to the progenitor of high score challenges this month. Let's see how the team fared

SAM 5,130
Boy, this is a tough game! It's all well and good focusing on the mystery UFO for points to start with, but once you get a few levels in it's just a game of survival.

DREW 3,790
I don't know how I got this score, my eyes must've glossed over and I found myself enter a state of Zen. I haven't even come close to replicating it.

NICK 3,140
I had the best score early on, but then went on holiday for a week and got overtaken. I'd have tried to take the crown back, but I was too busy messing around with my Game Gear.

DARRAN 2,740
I got a great score before I went on holiday and left it on Drew's desk via a post-it note. The note mysteriously disappeared, leaving this lower score as my only documented effort.



ARCADE HEAVEN

Hi there,
I just want to send a message about a feature I think would be great in **Retro Gamer**. I recently found out about Arcade Club, an old mill in Bury, which is now home to the largest arcade in Europe. I feel the more people that know about this place the better. It's like warping to a time forgotten, when arcades with classics such as *Bubble Bobble*, *Power Drift*, *Mercs*, *Sinistar* and *Golden Axe* were commonplace.

Just after writing a 780-word review on TripAdvisor about how amazing it is, I thought the best exposure the place could receive would be from the biggest retro game enthusiasts, the readers of **Retro Gamer**.
Benjamin Tilbrook

Many thanks for getting in touch Benjamin. We're glad you enjoyed your time at Arcade Club, and you're right, it definitely deserves to be in the magazine. We're actually planning to go up there this month, so look out for an article in the next few issues.

PAPER ADVENTURES

Hi Darran,
I don't know if you've seen or heard about a fan-produced magazine called *The Classic Adventurer*. It's fairly similar to **Retro Gamer** – lots of interviews with game creators and 'making of' articles – but it's devoted entirely to text adventures and can be found at classicadventurer.co.uk. Three issues have been released so far, although I only found about it a week or two ago. I think it should be given a mention in **Retro Gamer**.
Nicholas Campbell

It's not escaped our attention, Nicholas. We'll be hopefully running an article with its creator, Mark Hardisty in a later issue of the magazine.

SWITCH TO ROM?

Will Nintendo eventually release the back catalogue for all games over all their systems on the Switch? I've heard they are taking ROMs off the net, so

STAR LETTER
QUILTS AND BLANKETS

Hi all,
Just finished the excellent *Tetris* article, I love how such a simple game has taken the world by storm over the course of the last three-and-a-half decades and is still evolving and finding new ways to hook us all over again, without straying too far from the humble origins of it's original simple concept. It can be played on pretty much any system from the ZX81 to a PlayStation 4.

One comment I would make is that people always call it a puzzle game, but there's no puzzle, there's nothing to solve, it's a twitch arcade resource management game which perfectly encapsulates the 'simple to play hard to master' ethos that the very best games have.

As you can tell, I'm a huge fan, and I thought I'd share a picture of the blanket my very talented wife crocheted, it's an absolute beast that took months of her life to make! Her other creations, including some retro themed thingies can be found on Instagram @magicsheepcreations.

Anyway cheers for keeping the mag fresh for 183+ issues, it seems like no time at all since I picked up the first issue back in 2004 and thought it'd be an interesting one-off or short lived niche publication.

All the best,
Dave

Glad you loved the article Dave and we're massively impressed with your wife's blanket. It looks absolutely lovely and we can imagine it's the perfect thing to wrap up in while you're reading the next issue.



» Dave's quilt looks absolutely marvellous. We're quite jealous!

Don't forget to follow us online for all the latest retro updates

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CONTACT US

Snail Mail: Retro Gamer,
Future Publishing, Richmond House,
33 Richmond Hill, Bournemouth,
Dorset, BH2 6EZ

Email: retrogamer@futurenet.com





» *Classic Adventurer* is the latest project from Mark Hardistry. Expect an interview in a future issue.

is this all part of a Nintendo master plan to keep it all in house for their own download service?

Craig Johnson

While the idea of every single Nintendo-owned game appearing on Switch is the stuff dreams are made of, it's highly unlikely to happen. The recent news about Nintendo cracking down on certain ROM sites is most likely to protect its intellectual property and to send a direct message, rather than because it has plans to release its entire back catalogue. We'll cross our fingers, though.

TV OR NOT TV?

Hi **Retro Gamer**,

As a retro gamer I think a CRT TV is essential if you like playing on original hardware. Maybe you have already covered this (if so what edition was it so I can procure a copy) but it would be great to see an article on the topic. Perhaps covering the best CRTs for a retro gaming set up and also covering some of the more weird and obscure CRT models.

Cheers from a happy subscriber.

Chris Cheeseman



» If you're using old consoles you should always try and hook them up to a CRT.

We completely agree with you Chris when it comes to CRTs, they really are the best for playing retro games. Funnily enough, we've been discussing this very topic as one of our 'How To' guides, so expect a feature in the coming months.

DISCUSSED THIS MONTH

Game Gear Advanced

This month Nick decided to buy a TV Tuner for his Game Gear. He's then spent the past couple of weeks finding various things to run through it. Highlights include an Xbox 360 running *Street Fighter V* and a selection of old VHS wrestling tapes. He's currently planning to connect it to a Game Boy Player. Don't ask us why. It seems to keep him happy, though.





» [SNES] It's highly unlikely that Nintendo's entire back catalogue is going to appear on any system any time soon.

Your say

Every month, Retro Gamer asks a question on the forum and prints the best replies. This month we wanted to know…

What's your earliest memory of Space Invaders?

Brendan Randall
Played it with my dad in the Arcades in about 1979-1980 I was only about four so he used the joystick while I mashed the fire button… been hooked on games ever since.

Bruno Pierre
Never seen it in arcades here in Brazil, only on the Atari 2600.

Dave Dragert
I found the 1978 arcade version at a Pizza Hut back in 1980.

Robert Forthun Damli
A friend of mine had a neighbour, which had *Space Invaders* on his computer. This was back in the early Eighties. I remember the sounds and thought it was a lot of fun!

@YeOldGamerSteve
My first was the official arcade game in late 1978, I walked into an arcade and there's like 120 *Space Invader* machines, all lined up row upon row. Let me tell you, it was hard to find a free one! And the sound of all that was amazing and ear-shattering. Haha.

Simon McD
Millendreath Holiday Village, Cornwall, 1982. Will have been about six years old. Remember thinking that *Galaga* and *Phoenix* looked miles better!



» [Arcade] *Space Invaders* has been causing a lot of arguments in the office this month.

Josey Wales
Atari. Aged four. I would play it when my brothers were at school. We had a couple other games but *Space Invaders* was my favourite. I'd make up my own storyline while I played.

Tim Keeling
I used to play it in Kwik Save. I think it was the Midway version. I have one of my own now, a Taito upright.

@VituaOllie64
I played some sort of version on my Uncle's PC in the early Nineties. Great that such an iconic classic was still one of my very first gaming experiences, over a decade after it first appeared.

retro GAMER

Future PLC Richmond House, 33 Richmond Hill, Bournemouth, Dorset, BH2 6EZ

Editorial
Editor **Darran 'Large Invader' Jones**
darran.jones@futurenet.com
01202 586237
Production Editor **Drew 'Small Invader' Sleep**
Senior Staff Writer **Nick 'Medium Invader' Thorpe**
Senior Designer **Sam 'UFO' Ribbits**
Brand Director, Games **Tony Mott**
Senior Art Editor **Warren Brown**
Photographer **James Sheppard**

Contributors
Adam Barnes, Anna Blackwell, David Crookes, Paul Davies, Paul Drury, Kieren Hawken, Jason Kelk, Graeme Mason, Rory Milne, Paul Rose

Advertising
Media packs are available on request
Commercial Director **Clare Dove**
clare.dove@futurenet.com
Advertising Director **Tom Parkinson**
tom.parkinson@futurenet.com
Account Director **Kevin Stoddart**
kevin.stoddart@futurenet.com

International
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International Licensing Director **Matt Ellis**
matt.ellis@futurenet.com

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Magazines Marketing Director **Sharon Todd**

Circulation
Head of Newstrade **Tim Mathers**

Production
Head of Production **Mark Constance**
Production Project Manager **Clare Scott**
Advertising Production Manager **Joanne Crosby**
Digital Editions Controller **Jason Hudson**
Production Controller **Vivienne Calvert**

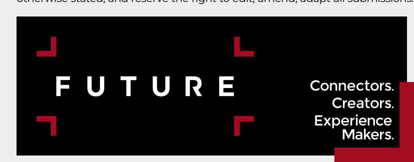
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Commercial Finance Director **Dan Jotcham**
Group Content Director **Paul Newman**
Head of Art & Design **Rodney Dive**

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Chief executive **Zillah Byng-Thorne**
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HOW TO

QUICK GUIDES TO HELP YOU GET THE BEST FROM YOUR GAMES

DIFFICULTY

●●○○○

LOW-MEDIUM

WHAT YOU'LL NEED

- » 60HZ COMPATIBLE TV
- » SUPERGUN
- » ARCADE GAME PCB
- » KICK HARNESS *(OPTIONAL)*
- » JAMMA ADAPTOR *(OPTIONAL)*

DON'T FORGET...

- » If you're holding a bare PCB, hold it by the edges and don't touch the metal contacts.
- » Some games required multiple PCBs – always check a manual beforehand to ensure you're getting all the parts you need.

WHERE TO BUY

- » **Vogatek** www.vogatek.com
  This UK-based shop sells compact entry-level Superguns, including the Mark IV pictured in this feature.
- » **Retro Elektronik** www.retroelectronik.com
  This French seller's Supergun ProGamer offers almost every option we could imagine, at a reasonable price.
- » **Windy Gaming** www.windygaming.com
  An American site, whose ATP-300 Supergun comes with everything you need except a game and controller.

HOW TO...

RUN ARCADE GAMES AT HOME

NT

With all the arcade-perfect ports on consoles today, life is good – unless your favourite game never got ported. But there's no need to worry, as you can still use a Supergun to play it at home…



01 Do some research into the games you want to run, as certain characteristics will help you decide what you need later on. For example, does the game use more than three buttons? Does the game PCB use a JAMMA connector? Once you're happy with your choices, pick up your first arcade PCB.

02 Choose a Supergun. These come in a range of shapes and sizes – some have controls built in while others support external controllers, some allow you to wire up test and service buttons, some support six buttons. If your TV doesn't support RGB SCART, some Superguns support composite and S-Video.





03 Most Superguns will require some extra components – get those, too. Our one is pretty barebones, so it needed an ATX power supply (as used in PCs), an RGB SCART cable, a set of speakers and Neo-Geo controllers. If we wanted a test switch, we'd need to supply one of those, too.

04 Some arcade games, including all games made before 1985, don't use a JAMMA connector. If that's the case with your board, you'll need an adaptor. If your game uses more than three buttons, you may need extra wiring known as a 'kick harness' – named after *Street Fighter II*'s kick buttons.



Something you'd like to see a guide for? Contact us at:

RetroGamerUK @RetroGamer_Mag retrogamer@futurenet.com

MYTHBUSTER Everything you know is a lie

MYTH: Surely I can just connect the sound to my TV?
FACT: Only if you want to blow out your speakers! Arcade games use amplified sound that is liable to wreck your TV's speakers if connected directly. Certain boards, such as early versions of the Neo-Geo MVS, have a volume slider which makes direct connection possible. If yours doesn't, stick to passive speakers.

MYTH: Don't I need a special monitor to play arcade games?
FACT: For the majority of older games, your TV will do just fine, but you might need to rotate it for vertical games. Some games require medium resolution (23KHz) or high resolution (31KHz) monitors, though. For these games you'll need to bypass your Supergun's video output and use a screen capable of these resolutions.

> **"If your TV doesn't support RGB SCART, some Superguns support composite and S-video"**



05 Connect everything up and power it on. If it all goes correctly, you should see the attract mode start up. If you have a test switch installed, you can use this to set your options before you start playing. Now marvel as the arcade experience comes home!

WHAT NEXT?

- » Some people like to 'consolise' cartridge-based boards like the Neo-Geo MVS, adding the video output, power and control inputs straight to the motherboard.
- » Capcom released the CPS Changer in Japan, a rare device which was essentially a Supergun. Due to its awkward shape, it's still best used with Capcom's official releases.

SEND US YOUR QUESTIONS

Do you want to clean a console but are too scared to open it up without guidance? Do you want to back up your cartridges but don't know how? Send us your questions and the best ones will feature as a full How To guide, just like this one. Reach us at retro.gamer@futurenet.com.

YOUR QUESTIONS ANSWERED. . .

A selection of smaller questions from readers…

(UN)TIE THE KNOT

What's the best solution for retro cable spaghetti avoidance? I find myself doing a mass untangle every two or three months.
Old Dean Leopard via Twitter

If you've got a fairly stable setup and you're not constantly swapping systems in and out, plastic cable ties are cheap and effective (though obviously not reusable). If you need to move things more often, a durable plastic spiral wrap cable tidy like the one pictured can be very useful, as it can be reused.

MAG LOVE

How do you keep magazines in good nick? I just put mine all piled up on my bookcases but I am sure there are better ways.
Vince White via Facebook

To keep them in absolutely tip-top shape, the best thing to do is keep them in clear polypropylene sleeves to protect them from the elements, with card backing boards to ensure they don't get bent out of shape. As always, be sure to keep them well away from direct sunlight and damp areas.

AT ALL COSTS

How do I justify paying big money for a single cartridge, to a partner who thinks retro gaming is done via a Raspberry Pi?
Brian Hooper via Facebook

You could visit pricecharting.com and see if you can find data to support the idea of the cartridge as an investment. It might be possible to invent a psychological justification to support your purchase. Alternatively, Nick finds that being single is an effective way of ensuring that he never has to worry about a partner's concerns, but you may feel this is rather too drastic.



» Some older games, usually ones from Nintendo, never lose value so they're a worthwhile investment, provided you can look after them.

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ENDGAME



DANAN THE JUNGLE FIGHTER

» Danan's a man on a mission – not only has the neighbouring tribe killed his guardian Jimba, they're trying to unseal the evil god Gilbas. Short on clothes, long on rippling musculature and unsure as to whether or not he's related to the similarly-named warrior Rastan, our hero fights his way through the Amazon to defeat the ancient threat. Here's a look at what happens when he succeeds in his quest



01

» Gilbas is defeated, but not dead. In fact, Danan says that he can never be truly dead, so long as humans desire the things they were never meant to have. Linda responds with a depressingly accurate assessment of human nature.



02

» Given that Jimba's dead and everything, Danan doesn't have a home to go to anymore, so he decides to stick around and stop any other miscreants from awakening the fearsome ancient evil that has once again been sealed away.



03

» Danan doesn't want to do it alone, though. He mentions that he could use a companion, and Linda says "I was hoping you'd ask." Danan, failing spectacularly at reading the mood of the conversation, busts out this classic invitation.



04

» Somehow, despite being on the receiving end of one of the least romantic lines ever delivered by an action hero, Linda is overcome with emotion and decides that she'll stick around in the jungle for the rest of her life, too. Why bother? They don't even have pizza delivery or Wi-Fi.



05

» Off they trot back to a nearby house – which presumably has just been empty, waiting for them to make this noble sacrifice. But if Gilbas can be defeated by a man equipped with no body armour and a simple knife, he's not that bloody dangerous, is he? Get over yourself, Danan.